

3. Catalogue of a Collection of Spiders made in Egypt, with Descriptions of new Species and Characters of a new Genus. By the Rev. O. P. CAMBRIDGE, M.A., C.M.Z.S., and Hon. Memb. New-Zeal. Institute.

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(Plates LVIII.-LX.)

Since the time of Savigny, who, in conjunction with Audouin (A.D. 1809-13), figured and described about eighty-four species of Araneidea in his great work on Egypt, very little has been done in this particular branch of Egyptian zoology. The chief, if not all, of the later additions to the known Spiders of those regions are several species of Drassides (a portion of the present collection) published in the 'Proceedings' of the Zoological Society, 1872, pp. 224-247, and nineteen others of the same family and collection, likewise published in the Zoological Society's 'Proceedings,' 1874, p. 370 *et seq.* Dr. Ludwig Koch also records and describes, in 'Ägyptische und Abyssinische Arachniden,' Nürnberg, 1875, nineteen species of Araneidea, found near Cairo by Herr C. Jickeli. Egyptian entomology in general appears to have received comparatively little attention, considering the great number of tourists and naturalists who have visited the Nile during the last fifteen or twenty years. Probably this has arisen in a great measure from the superior attractions offered by the birds of that rich ornithological region; a strong and very decided love of Insects and Arachnids would be required to make these more attractive to most travellers than the numerous feathered tribes. There are regions of the world where the size, the number, and the beauty (or ugliness, as it may be) of the Insect and Arachnid orders almost oblige the most indifferent observers to note and collect them: but Egypt is decidedly not such a region. We have a strong proof of this in a lately published lecture on the Rambles of a Naturalist in Egypt, by Mr. J. H. Gurney, jun.; a notice before me of this lecture says, "Mr. Gurney briefly alluded to the entomology of the country, which appears to consist of fleas, flies, and mosquitoes." It would argue a tough skin, and indifference to entomology indeed, were a naturalist, or any other traveller, to pass over these without notice, so very close and persistent are their attentions; and perhaps more attention would be paid to entomology (in a wider sense) were their attentions rather less pertinacious. As it is, however, the "fleas, flies, and mosquitoes" are numerous and persistent enough to make it impossible to escape them, while others of this class (Spiders included) are comparatively scarce, and, generally speaking, so little attractive, from their usually small size and sombre colouring, as to require close observation and careful search to obtain any thing like a fair representation of their indigenous forms. Still any naturalist with

good health and a love of the subject would find ample reward for any real work among the Insects and Spiders of the Lower Nile basin. My own work there during about eleven weeks, between the middle of January and the middle of April 1864, from Alexandria to Assouan, resulted in a collection of several hundred species of Insects of all orders, besides the 164 species of Spiders contained in the present list, as well as some few Acaridea and Scorpionidea. Rather more than one third of the Spiders belong to the two families Drassides and Salticidae, these being also the two families even more numerously represented, absolutely as well as proportionally, in Syria and Palestine than in Egypt (see P. Z. S. 1872, p. 214). In those countries they comprise 117 species, or nearly one half of the Araneidea met with, while the numbers found in Egypt are 56. The dry and desert nature of both Palestine and Egypt are alike favourable to the development of the Drassides and Salticidae; and many of the species are common to both countries. Suffering a good deal from climatic influences, I was unable to work very hard. Except for this and some other reasons, I feel no doubt but that the number of Spiders in my collection would have been nearly, if not quite, doubled; and if so, it is evident that there remains yet much to be done in order to exhaust the Egyptian species of this order. Of the total (164 species), 91 appeared to be new to science; 62 of these are now described for the first time, while the remainder (principally, as before mentioned, of the Drassides and Salticidae) have been already described, P. Z. S. 1872 and 1874. One Spider alone in the collection appears to require the formation of a new genus for its reception, see p. 596. This Spider is of the family Lycosidae, and is allied to the genus *Dolomedes*; it was found in a swamp near the canal about three miles from Alexandria.

Comparing the numbers of genera and families with those found in Syria and Palestine, their very near similarity is remarkable. 19 families, comprising 59 genera, are the numbers in the latter district, while those of Egypt are respectively 17 and 60. In the present list, however, the Latreillian genus *Salticus* is divided into eight generic (or subgeneric) groups; if this had been also done in the Palestine list, the number of genera would have been there 66 instead of 59; but even then the totals are remarkably near to each other. Comparing these results with those I have obtained in Great Britain (at present one of the best-, or perhaps the best-worked European district in respect to the Araneidea), we find here 78 genera distributed among 14 families, 4 South-European families being unrepresented. This comparison might have been extended to the results obtained in Sweden by M. Westring and Dr. T. Thorell, as well as in Italy by Dr. P. Pavesi, and in Algeria by Mons. H. Lucas; but it seems best at present to confine it to those results obtained by, as nearly as possible, an identical system of generic and family limitation, since a difference of system would necessarily produce a different result in regard to the numbers of families and genera. I should have liked to have been able to make a more certain collation of the Egyptian Spiders with those of

Algeria, inasmuch as, from the nature of their geographical and physical conditions, the faunas of Egypt and Algeria must have very much in common; my collection, however, of Algerian Spiders is too scanty for this purpose, and I have not been able to get access to any others. So far as I can make out with tolerable certainty, about eighteen species only of the following list appear to be identical with species found in Algeria. The determination, however, of closely allied species by means of descriptions and figures alone is very uncertain work; and thus I have in many cases hesitated to determine, from these alone, their synonymic identity. And so, again, in some instances I may perhaps have described as new, species already described by M. Lucas in his great Algerian work; but this, of the two, appears to me a less evil than that of including, as synonymic, species not certainly identified as similar.

A list is added to this paper of those Egyptian Spiders, so far as I have been able to ascertain them, not found by myself, but described and recorded by other authors. This considerably swells the number of known species, but adds nothing to the numbers of indigenous families and genera contained in my own list. Thus the total number of Egyptian Araneidea known to the present time appears to be 226.

Out of the 164 species found by myself, 29 are identical with species described and figured by Savigny and Audouin, and the numbers (of species of all genera) common to Egypt and Palestine are 48.

Order ARANEIDEA.

Family FILISTATIDES.

Genus FILISTATA (Latr.).

FILISTATA TESTACEA.

Filistata testacea, Latr. Considérations, p. 12; Cours d'Entomologie, p. 512.

F. attalica, Koch, Die Arachn. v. p. 6, pl. 146. fig. 343; Cambr. Spid. Palest. & Syria, P. Z. S. 1872, p. 216.

Adult females and a single adult male of this species were found in crevices of the bark of palm and other trees, and in the interstices of old walls, near Alexandria and in several other parts of Egypt.

The Spider recorded P. Z. S. *l. c.* is, I think, of the same species as the one here noticed. At the time of drawing up the list of Palestine Spiders I had some doubts on this point; but at present I consider them to be identical with each other, as well as with *F. attalica*, Koch, and *F. testacea*, Latr. *F. bicolora*, Walck., is also probably identical with these.

The calamistrum on the metatarsi of the fourth pair of legs differs from that of other Spiders possessing it, both in extent and position. In the present species it consists of a few strong curved spine-like bristles in a longitudinal series, situated on a sharpish ridge, a little depressed, close to the hinder extremity on the inner side of the joint. The inframammillary organ, although present, is not easily

seen at first, owing to the numerous and strong hairs with which it is concealed.

FILISTATA PUTA, sp. n.

Adult female, length $2\frac{1}{2}$ lines (nearly).

This Spider is very nearly allied to *F. testacea*, Latr., but differs from it in the whole of the fore part (including the legs and palpi) being of a clear straw-yellow colour. The *cephalothorax* has no dark margins; nor is there any dark longitudinal band on the hinder part of the caput, nor on each side of the clypeus, as in *F. testacea*; the legs also are quite immaculate. The colour of the abdomen is a dull yellow, slightly tinged with brown. If the specimen here described be of the normal adult size, it is also a much smaller species than *F. testacea*. The eyes of the hind central pair are smaller in proportion to the hind laterals than in that species; otherwise their position and relative size are very nearly similar.

An adult and immature females were found in interstices of walls at Alexandria in April 1864.

Gen. *ÆCOBIUS*, Luc.

ÆCOBIUS PUTUS, sp. n. (Plate LVIII. fig. 1.)

Adult male, length $1\frac{3}{4}$ line.

In colours and general appearance this Spider is very similar to *Æ. templi*; but it is larger, and the legs have on the metatarsi and tarsi (of the fourth pair at least) several distinct and tolerably strong prominent spines. The eyes are not so large. The interval between those of the central pair (which are the largest of the eight) is equal to an eye's diameter; and the two posterior flattened angular eyes are much smaller. The armature also of all the femora is of a much more spinous character. The abdomen is more thickly covered with white cretaceous spots; and the cruciform marking on the upper side is better defined, though of a similar character. The palpi are thickly furnished with fine pale hairs; the digital joints are much larger than those of *Æ. templi*, and the palpal organs more prominent and developed. Their structure, although on the same general plan, is distinctly different in the development of their processes. From *Æ. domesticus* it may also be distinguished by its larger size and the structure of the palpal organs, as well as by the other marks noted above.

An adult and three immature males, as well as two immature females, were found under small sheets of web on the walls of one of the temples of Upper Egypt, between Deenderah and Assouan; but having lost the notes made at the time, I cannot be certain as to the exact locality.

The females had all the leg-armature, including the calamistrum, rubbed off against other specimens in the bottle of spirits in which they came home; but the inframammillary organ is plainly visible both in the females and males.

Two adult males and ten females were found among the ruins of

the Temple of Philæ, in Upper Egypt, where they were concealed under small sheets of web spun in the angles and superficial inequalities of the columns and walls.

ÆCOBIUS TEMPLI, sp. n. (Plate LVIII. fig. 2.)

Adult male, length $1\frac{1}{4}$ line.

This plainly coloured Spider is nearly allied to *Æcobius domesticus*, Lucas, from which it may be distinguished by the much smaller size of the digital joint of the palpus and palpal organs and the different structure of the latter; the eyes also are larger in proportion and more closely grouped together.

The general form and appearance of this species is similar to that of all the other known species. The *cephalothorax* is pale yellow, thinly clothed with hairs, a fine irregular blackish line runs back from each of the two hindermost eyes; and the two lines converge into a single one at the thoracic junction; the impression by which this junction is marked is large and roundish.

The *eyes* are in the ordinary position, and may be either described as in two lateral, longitudinal, curved rows of three each, between which, towards the fore side of the area thus enclosed, are two others (central ones) in a transverse line; or else they may be described as in the usual position of two transverse curved rows of four each; perhaps it will be most convenient to speak of them, in regard to their relative size and situation, as in the former position: the two central eyes are largest of the eight and are separated from each other by less than a diameter's interval, each being near but not contiguous to the foremost eye of the lateral row, on its side; the posterior eye of each lateral row is flattened, obliquely placed, and of an elongated curvilinear form (the base of the triangle being in front), and each is contiguous to the next eye of the same row; the interval between the angles of the two posterior eyes nearest to each other is about equal to the base of each of these eyes.

The *legs* are rather long and slender, of a tapering form and pale yellow colour, but not greatly differing in length, their relative length appearing to be 4, 3, 2, 1, ? and they are sparingly furnished with hairs of varied length, but no spines properly so called.

The *palpi* are not very long, but strong, and similar in colour to the legs, the palpal organs giving a yellow brown hue to the digital joint; the radial as well as cubital joints are short, and devoid of projections or apophyses; the digital joint is large, though less than that of *Æ. domesticus*, Luc.; the palpal organs are prominent and have some strong processes directed backwards and inwards: these processes although of a different form and less developed than those of other species, require a good magnified drawing to show their differences; no description could do this.

The *falces* are rather short, slender, and vertical; their colour is similar to that of the cephalothorax.

The *maxille*, *labium*, and *sternum* are of normal form and character; and their colour is similar to that of the legs.

The *abdomen* is oval and (looked at in profile) higher at its anie-

rior than at its posterior extremity; it is rather depressed, and projects considerably over the base of the cephalothorax; its colour is a dull testaceous yellow covered with irregular cretaceous white spots, leaving, however, near the fore half of the upperside, a tolerably well-defined longitudinal central cruciform dull brownish marking; the shaft of the cross tapers to a point posteriorly, near which, generally, an oblique line goes off on either side; the spinners are normal; in front of the usual six is an inframammillary organ similar to that of other spiders whose females, like the present, have a calamistrum on the metatarsi of the fourth pair of legs; the anus has the same curious fringe as other species of this and the allied genus (*Uroctea*, Duf.).

The female resembles the male in general characters, but is rather larger, and often has two or more indistinct brownish spots on the hinder part of the abdomen; as above mentioned, the metatarsi of the fourth pair of legs has a calamistrum, or series of curved bristles, concluded to be intended for carding the silk emitted from the inframammillary organs. Mons. Engène Simon (*Les Arachnides de France*, ii. p. 6) doubts the existence of these organs, and of the calamistrum, in this genus, or at least significantly remarks that he has been unable to discover them in any species he has examined. I do not, however, feel the smallest doubt that these characters will be found in all the species—*both* in the females, *one* (inframammillary organ) at least in the males. The hairs on the legs of these Spiders (together with those of the calamistrum), appear to be more easily rubbed off than in most other Spiders; and hence several females of this species have no hairs or bristles on the legs at all. Possibly M. Simon has only met with examples whose legs have accidentally been denuded of their armature. Undoubtedly a female of *Ecobius domesticus*, Luc., sent me from Tangier by M. Simon himself, has a calamistrum well marked on one of the posterior legs, but no trace of any on the other. The bristles forming this organ are proportionally longer and slenderer than in many other spiders similarly armed. The inframammillary organ, although narrow and, like that of other spiders, only just elevated above the surrounding surface, is yet, I think, unmistakable in both sexes of all the species known to me (ten in number). M. Simon thinks that I have mistaken a mere transverse fold of the skin for it; if he will, however, examine this fold under a strong magnifier, I think its mammillary nature will be sufficiently evident.

ECOBIUS ANNULIPES.

Ecobius annulipes, Lucas, *Explor. en Algérie*, vol. iv. p. 102, pl. ii. fig. 2.

A single adult female of this Spider was found under a stone in Upper Egypt.

Gen. UROCTEA, Duf.

UROCTEA LIMBATA.

Clotho limbata, C. Koch, *Die Arachn.*

An adult male and several females were found under stones at Alexandria in April 1864.

M. Simon (Les Arachnides de France, ii. p. 5) states that *U. durandi*, Walck., is also found in Egypt; I did not, however, meet with it myself there, though I found it shortly afterwards in the crevices of old olive-trees at Corfu, whence it could only be extracted by inserting a piece of stick, jagged at the end, into the crevice, and twisting it into the strong silken nest, when the whole with its occupant could now and then be drawn safely out.

Gen. ARIADNE, Sav.

ARIADNE INSIDIATRIX.

Ariadne insidiatrix, Savigny, Egypte, p. 109, pl. i. fig. 3.

An adult female among débris of an old mud wall near Cairo, in January 1864.

Gen. DYSDERA, Latr.

DYSDERA LATA.

Dysdera lata, Reuss-Wider. Mus. Senckenb. tom. i. p. 201.

Several examples which, after careful examination, I believe to be of this species, were found under stones at Alexandria in April 1864. None of these examples were adult; this determination, therefore, cannot be considered absolutely certain, since there are several nearly allied species, such as *D. crocata*, C. Koch, and *D. maurusia*, Thor., of which the immature examples appear almost to defy certain determination.

Gen. OONOPS, Templeton.

OONOPS SCUTATUS, sp. n. (Plate LVIII. fig. 2 A.)

Adult male, length $1\frac{1}{4}$ line.

This Spider is very closely allied to *Oonops loricatus*, Sim.; it is, however, larger, the measurement of that species (taken from two examples kindly sent to me by M. Simon) not exceeding three fourths of a line in length; the abdomen of the present spider is also of a rather narrower form, but more convex above, and far more glossy and polished on its upper surface, while in colours and some other characters there is but little apparent difference.

The *cephalothorax* is oval, strongly constricted laterally at the caput; the thoracic junctional point is (looked at in profile) of an angular form, and elevated above the level of the rest of the cephalothorax, the hinder slope being abrupt; it is of a bright orange-brown colour; and the sides and hinder part are thickly covered with minute tubercles or granulosities, which in some positions assume the appearance of punctures.

The *eyes* are large, six in number, closely grouped together, and occupy nearly the whole of the upperside of the fore extremity of the caput, where they form a quadrilateral figure whose foremost side is considerably shorter than the hinder one; they do not differ much in size, and are all of a more or less oval shape; those of the hind central pair are closely contiguous to each other, their sides of contact being flattened and so closely joined as almost to conceal the junction. The eyes of each lateral pair are very near together, but

not quite contiguous to each other, each fore lateral eye being also equally close to the hind central eye on its side, and each hind lateral eye still closer (almost contiguous) to the hind central nearest to it; the interval between those of the front row (or the fore laterals) is about equal to their longest diameter; the height of the clypeus, which projects a little at its lower margin, is rather less than half that of the facial space.

The *legs* are moderately long and strong, of a lightish orange-yellow colour; and their relative length appeared to be 4, 1, 2, 3; the femora are the strongest, especially at their posterior extremities, which are abruptly enlarged on the upperside close to the articulation, but run evenly thence to the anterior extremities; they are furnished, but not very thickly, with hairs; the tibiae and metatarsi of the first and second pairs are armed beneath with a double series of long and strong sessile spines; the other two pairs of legs have bristles (or very slender spines) in a similar situation; each tarsus terminates with two curved claws springing from a distinct supernumerary claw- (or heel) joint.

The *palpi* are short and not very strong; their colour is yellow, paler than that of the legs; and they are furnished with hairs and bristles; the cubital and radial joints are short, the former is bent downwards, the latter is rather the longest and strongest; the digital joint is narrow, tapering from the middle to the fore extremity, and no broader than, but almost double as long as, the radial; the palpal organs consist of a very large and prominent oval yellowish lobe with a largish curved, pale brownish yellow, pointed process at its anterior extremity.

The *falces* are moderately long, but not very strong, directed backwards towards the labium, furnished in front with bristly hairs, and similar in colour to the cephalothorax.

The *maxillæ* and *labium* are of normal form, the latter being rather large; these parts, with the *sternum*, are similar to the legs in colour.

The *abdomen* is of an oval form, moderately convex above, and covered both above and below (like *O. punctatus* Cambr., and *O. loricatus*, Sim.) with a bright reddish yellow-brown somewhat corneous scutum, the approximate edges, according as they are more or less separated, showing a greater or less interval of pale yellowish membranous integument. It appears, from observations made by M. Simon, "Aranéides nouv. ou peu connus du midi de l'Europe," Mém. Liège, 2^e sér. t. v. p. (sep. cop.) 45, that the Spider he describes has the power to bring the edges of this supra-abdominal and subabdominal scutum together, or to separate them, at will; the spiracular plates are continuous with each other, and, extending forwards, cover the pedicle by which the abdomen is connected with the cephalothorax; this pedicle is longer and more distinctly developed than in most other Spiders; the upper scutum is very highly polished and glossy, and it is thinly but evenly covered with minute tubercles, each of which supports a fine bristly hair: the spinners are short and inconspicuous; they are enclosed

below by a narrow reddish yellow-brown semicircular band of a similar nature to the scutum with which the abdomen is covered. When the edges of the upper and lower scutum are brought together, they enclose and conceal the spinners. The spiracular openings are four in number, the two extra ones being smaller than the others and situated one close behind each of the two ordinary openings; M. Simon, *l. c.* pp. 41, 42, says that he has been unable to discover these extra openings in any species of *Oonops* that has come before him; they are, however, plainly visible in the two examples of *O. loricatus* which I received from him, though less plainly in *O. punctatus* Cambr. In the type of the genus, *O. pulcher*, Templ., owing to the minuteness of the Spider, and (after it has been some time in spirit of wine) pale colour of the abdomen, the hinder spiracular openings are very difficult to be seen; indeed in some examples I am quite unable to detect them; in one or two, however, I can discern them sufficiently to be quite convinced that the species possesses them; only, being the merest possible slits, they cannot in general be seen with an ordinary lens. It would be strange indeed if they were really wanting in *O. pulcher*, while so unmistakably present in *O. scutatus*, and *O. loricatus*, as well as in the species next described (*O. pauper*), which last is very nearly allied to *O. pulcher*, and in another undescribed species allied to *O. scutatus*, received from Ceylon; all these Spiders are, as it appears to me, generically quite identical.

Three examples of *O. scutatus* (one male and two females) were found by myself under stones near Alexandria in April 1864.

OONOPS PAUPER, n. sp.

Adult female, length $1\frac{1}{3}$ line.

The cephalothorax, falcæ, maxillæ, labium, and sternum of this Spider are of a dull orange-yellow colour, the legs and palpi being pale straw-yellow, and the abdomen dull whitish brown.

The cephalothorax is short, broad behind, and strongly constricted laterally at the caput; the normal indentations are tolerably strongly marked; and the height of the clypeus is equal to half that of the facial space; the highest point (looked at sideways) is at the thoracic junction, whence it runs by an evenly curved slope to the clypeus, the hinder slope not being very abrupt; the clypeus is furnished with some minute tubercles, each of which was probably furnished with a bristly hair; but if so, these had been rubbed off before this description was made.

The eyes are large, seated on black tubercular spots, and occupy the whole width of the fore part of the caput; their position is the same as that of those of *O. pulcher* (Templ.), but they are far more circular in shape; the hind lateral and central eyes form a slightly curved row, whose convexity is directed forwards; those of the central pair are as nearly as possible contiguous to each other; and each is separated by rather less than its diameter's distance from the hind lateral nearest to it; the hind laterals have a strong sideway and backward direction, and each is very near, but not quite con-

tigious to its fore lateral eye; the interval between the fore laterals is equal to very nearly two diameters; those of each lateral pair are placed obliquely, and are rather smaller than those of the central pair.

The *legs* are rather long and slender, except the femoral joints; their relative length appears to be 4, 1, 2, 3. Whatever their armature may have been, it was entirely rubbed off before this description was prepared.

The *palpi* are rather long, slender, and similar in colour to the legs; the digital joint is cylindrical and exceeds in length the radial and cubital joints together.

The *fulcres* are long, tolerably strong and straight, but strongly directed backwards to the labium; and their front surface is thinly covered with minute, and probably pilose, reddish brown tubercles.

The *maxillae* and *labium* are forced backwards into a direction perpendicular to the sternum, owing to the strong backward direction of the fulcres. Their form is thus very difficult to be ascertained, but it appears to be similar to that of the other species of this genus.

The *abdomen* is short, oval in form, considerably convex above, and does not project over the base of the cephalothorax; the connecting pedicle being distinct. Four spiracular springs are plainly visible, the two extra ones being placed not far behind the ordinary pair. The spinners are short; those of the inferior are much the strongest. A single example was found under a stone at Alexandria in April 1864.

FAM. DRASSIDES.

Gen. GNAPHOSA, Latr.

GNAPHOSA PLUMALIS.

Gnaphosa plumalis, Cambr. Proc. Zool. Soc. 1872, p. 225, pl. xv. fig. 3.

An adult male of this Spider was found under a stone at Alexandria.

GNAPHOSA CONSPERSA.

Gnaphosa conspersa, Cambr. Proc. Zool. Soc. 1872, p. 230. pl. xv. fig. 5.

An adult male and female, besides immature examples of both sexes, were found under stones near the pyramid of Ghizeh.

GNAPHOSA PROCERA.

Gnaphosa procera, Cambr. Proc. Zool. Soc. 1874, p. 373, pl. i. fig. 2.

This Spider is very similar in size, general form, structure, colours and markings to *G. conspersa*, but may be readily distinguished by the special form and structure of the palpi and palpal organs; examples of both sexes in the adult state were found under stones near Alexandria.

GNAPHOSA MARGINATA.

Gnaphosa marginata, Cambr. Proc. Zool. Soc. 1874, p. 374, pl. li. fig. 3.

A single adult female was found among the ruins of an old wall near Cairo.

GNAPHOSA VENATRIX.

Gnaphosa venatrix, Cambr. Proc. Zool. Soc. 1874, p. 375, pl. li. fig. 4.

A single adult male of this Spider, which is nearly allied to *G. plumalis*, Cambr., was found at Alexandria. The form of the radial joints of the palpi will serve to distinguish it at once from its near allies.

Gen. DRASSUS, Walek.

DRASSUS MUNDULUS.

Drassus mundulus, Cambr. Proc. Zool. Soc. 1872, p. 324, pl. xv. fig. 11.

An adult male and female were found among the ruins of an old wall at Cairo.

DRASSUS SENILIS.

Drassus senilis, Cambr. Proc. Zool. Soc. 1872, p. 236, pl. xv. fig. 13.

An adult female was found under a stone near Alexandria.

DRASSUS INFUMATUS.

Drassus infumatus, Cambr. Proc. Zool. Soc. 1872, p. 238, pl. xv. fig. 16.

An adult example of each sex was found under the ruins of an old mud wall near Cairo.

DRASSUS ORNATUS.

Drassus ornatus, Cambr. Proc. Zool. Soc. 1874, p. 388.

A single example of the female was found under a piece of stone, near Alexandria.

DRASSUS CAMPESTRATUS.

Drassus campestratus, Cambr. Proc. Zool. Soc. 1874, p. 392, pl. li. fig. 17.

An adult male was found under a stone near Alexandria.

DRASSUS ALEXANDRINUS.

Drassus alexandrinus, Cambr. Proc. Zool. Soc. 1874, p. 393, pl. li. fig. 18.

A single adult male was found among the débris of an old wall near Alexandria.

DRASSUS ÆGYPTIUS.

Drassus ægyptius, Cambr. Proc. Zool. Soc. 1874, p. 394, pl. li. fig. 19.

An adult male and female were found under stones at Alexandria.

DRASSUS VULPINUS.

Drassus vulpinus, Cambr. Proc. Zool. Soc. 1874, p. 397, pl. li. fig. 22.

A single adult female was found in an old building at Cairo.

DRASSUS DENOTATUS.

Drassus denotatus, Cambr. Proc. Zool. Soc. 1874, p. 398, pl. li. fig. 24.

A single adult female at Cairo.

DRASSUS PUGNAX.

Drassus pugnax, Cambr. Proc. Zool. Soc. 1874, p. 399, pl. li. fig. 25.

An adult male was found among the débris of an old wall at Cairo.

Gen. PROSTHESIMA, L. Koch.

PROSTHESIMA LÆTA.

Prosthesima læta, Cambr. Proc. Zool. Soc. 1872, p. 241, pl. xv. fig. 19.

An adult male, together with an immature example of each sex, were found under stones near Cairo.

PROSTHESIMA PICINA.

Prosthesima picina, Cambr. Proc. Zool. Soc. 1872, p. 242, pl. xv. fig. 20.

An adult female under a stone near Alexandria.

PROSTHESIMA TRISTICULA.

Prosthesima tristicula, Cambr. Proc. Zool. Soc. 1874, p. 377, pl. li. fig. 6.

A single adult male was found under a piece of rock near Alexandria.

PROSTHESIMA CURINA.

Prosthesima curina, Cambr. Proc. Zool. Soc. 1874, p. 379.

An adult male, under a stone at Alexandria.

PROSTHESIMA NILICOLA.

Prosthesima nilicola, Cambr. Proc. Zool. Soc. 1874, p. 380, pl. li. fig. 8.

A single example of the adult male was found under a stone near Alexandria.

PROSTHESIMA MOLLIS.

Prosthesima mollis, Cambr. Proc. Zool. Soc. 1874, p. 381, pl. li. fig. 9.

An adult female under a stone near Alexandria.

PROSTHESIMA PALLIDA.

Prosthesima pallida, Cambr. Proc. Zool. Soc. 1874, p. 383, pl. li. fig. 11.

A single example of each sex in the adult state were found under stones near Alexandria.

PROSTHESIMA INAURATA.

Prosthesima inaurata, Cambr. Proc. Zool. Soc. 1872, p. 246, pl. xv. fig. 26.

An adult male and female were found under stones near Alexandria.

Gen. MICARIA, Westr.

MICARIA CINCTA.

Micaria cincta, L. Koch, Die Arachn.-Fam. der Drassid. p. 53, pl. iii. figs. 36, 37.

An adult of each sex under a stone at Alexandria.

Gen. CHEIRACANTHIUM, Koch.

CHEIRACANTHIUM DUBIUM, Cambr. Proc. Zool. Soc. 1874, p. 403, pl. lii. fig. 28.

A single adult male at Alexandria.

CHEIRACANTHIUM EQUESTRE.

Cheiracanthium equestre, Cambr. Proc. Zool. Soc. 1874, p. 404, pl. lii. fig. 29.

An adult example of each sex near Cairo.

CHEIRACANTHIUM ISIACUM.

Cheiracanthium isiacum, Cambr. Proc. Zool. Soc. 1874, p. 407, pl. lii. fig. 31.

Adults of both sexes on low plants in the neighbourhood of Cairo.

CHEIRACANTHIUM TENUISSIMUM.

Cheiracanthium tenuissimum, L. Koch, Die Arachn.-Fam. Drassid. p. 264, pl. x. figs. 161-163.

An adult female at Alexandria.

CHEIRACANTHIUM ANNULIPES.

Cheiracanthium annulipes, Cambr. Spid. of Palest. & Syria, P.Z.S. 1872, p. 254, pl. xvi. fig. 36.

An adult female at Cairo.

Fam. PALPIMANIDES.

Gen. PALPIMANUS, Duf.

PALPIMANUS HÆMATINUS?

Palpimanus hæmatinus, C. Koch, Die Arachn. iii. p. 21, pl. 80. fig. 179.

A female, which I take to be perhaps of this species, was found in the neighbourhood of Alexandria in 1864; and it appears to be identical with examples found in Palestine in 1865. I have since, however, had occasion to doubt whether these are, or not, the true *P. hæmatinus* of C. Koch; they are certainly different from a closely allied species which I found subsequently in Corfu and at Smyrna. This latter species may be the true *P. hæmatinus*, C. K., coming, as it does, nearly from the same region as the type of Koch's species. The Spiders of this genus are very nearly allied to each other, and are remarkably similar in their general characters and appearance; and it will require a close comparison of their respective genital organs to determine the species with any certainty.

PALPIMANUS SAVIGNYI.

Platyscelum savignyi, Aud. in Sav. Egypte, p. 167, pl. vii. figs. 6, 7.

Two females, certainly distinct from that last noted, were found in ascending the Nile from Cairo to Thebes. My note of the exact locality has been mislaid; but I feel little doubt that these are of the same species as that mentioned in the synonym above quoted.

Fam. ERESIDES.

Gen. ERESUS, Duf.

ERESUS PETAGNÆ.

Eresus petagnæ, Aud. in Sav. Egypte, pl. iv. fig. 11.

Adult and immature females of this species were found under stones near Alexandria. But for M. Simon's opinion ("Note sur la famille des Eresidæ," Ann. Soc. Ent. Fr. 5^e sér. tom. iii. 1873, p. 357), I should have considered this species to have been identical with *Eresus imperialis*, Duf. (= *E. frontalis*, Latr.)

ERESUS DUFOURII.

Eresus dufourii, Aud. in Sav. Egypte, p. 151, pl. iv. fig. 7.

Immature examples of this very distinct species were found on low plants on the edge of the desert above Assouan. I have received from Italy adults of both sexes of a species which I believe to be identical with the present. It is a small species, the adult male measuring only $2\frac{3}{4}$ lines in length, while that of the adult female is no more than 3 lines.

Fam. DICTYNIDES.

Gen. DICTYNA, Sund.

DICTYNA INNOCENS.

Ergatis innocens, Cambr. Spid. Palest. & Syria, P.Z.S. 1872, p. 262.

Adult male, length rather more than 1 line.

Females only of this distinctly marked species were found in Palestine; but a single adult male example of what I feel no doubt is of the same species, found on a low plant near Cairo, enables me now to give the distinctive characters of the latter sex.

In colour and markings both sexes are alike. The *cephalothorax* of the male is of a dark yellowish-brown colour, thinly clothed with coarse hoary hairs; the caput is strongly elevated and well rounded; the clypeus projects considerably forwards, and its height exceeds half that of the facial space.

The *eyes* are in the usual position; those of the fore central pair are nearer together than each is to the fore lateral eye on its side.

The *legs* are moderate in length and strength; their relative length is 1, 2, 4, 3. They are of a dull yellow colour, faintly banded with brown, and clothed with coarse hairs, of which many are of a hoary colour.

The *palpi* are of a dull pale yellow colour; the radial and cubital joints are short, but about equal in length; and from the upperside at the hinder extremity of the former there is a small thorn-like blackish spine directed forwards; the digital joint is large and broad; the palpal organs are simple, and surrounded by a strong black spine, which arises from their base on the inner side, and terminates in a fine point near their base on the outer side.

The *falces* are of moderate size, and of the curved form usual in spiders of this genus, though less remarkably so than in some others, and they are of a dark brown colour.

The *maxilla*, *labium*, and *sternum* are similar in colour to the *falces*, and clothed thinly with coarse hoary hairs.

The *abdomen* is oval and projects a little over the base of the cephalothorax; the ground-colour is dull brownish-yellow clothed with hoary and other hairs; the longitudinal central black-brown marking on the fore part of the upperside is cruciform near its hinder extremity, where it is also strongly bifid, the limbs of the bifid portion being recurved; this bifid part represents, in fact, the foremost of the series of blackish-brown angular bars running along the middle of the hinder half; the sides are irregularly marked and blotched with dark brown; and the underside has a broad longitudinal central brown band throughout its length; and on either side of this band is a large oblong oval whitish patch, formed chiefly by hoary hairs. The transverse supernumerary mammillary organ is present, close in front of the ordinary spinners; but no calamistra are visible on the metatarsi of the hinder pair of legs.

DICTYNA CONDOCENS, sp. n. (Plate LVIII. fig. 3.)

Adult male, length 1 line.

This Spider is very nearly allied to the next, *D. condocta*, resembling it closely in colours and in the general character of its markings. It may, however, be easily distinguished by the less distinctness and boldness of the markings on the abdomen, as well as by the darker thorax contrasted against the paler caput, some of the hoary hairs on which last form a tolerably distinct narrow longitudinal band.

The *clypeus* also *exceeds in height* half that of the facial space, and projects more forwards. The underside of the abdomen also is of a uniform pale dull yellowish colour.

The radial joints of the palpi are destitute of the characteristic spine near the hinder extremity of the upperside; the digital joints are smaller in proportion; and the spine surrounding the palpal organs is far less strong and conspicuous, being shorter and much more slender.

The *falces*, while presenting the characteristic form of the genus, exhibit it in a less marked degree than those of *D. condocta*.

Adults of both sexes appeared to be numerous on the branches of the Sont Acacia, in February, March, and April, near Cairo and in other parts of Lower Egypt.

DICTYNA CONDOCTA, sp. n. (Plate LVIII. fig. 4.)

Adult male, length rather less than 1 line.

The *cephalothorax* of this small species is strongly constricted laterally at the junction of the caput and thorax; the caput is slightly elevated and rounded; the *clypeus* projects forwards at its lower part, and its height is not quite equal to half that of the facial space.

The colour of the cephalothorax is a deep yellow-brown with a blackish margin; and its surface is thinly furnished with coarse hoary hairs.

The *eyes* are in the usual position; those of the fore central pair are separated by a wider interval than that by which each is divided from the lateral eye on its side; those of the fore and hinder central pairs form very nearly a square, the posterior side being a little longer than the anterior one; those of the fore central pair are dark-coloured, the rest being of a light hue.

The *legs* are moderately strong, and rather long; their relative length being 1, 2, 4, 3; they are of a pale yellowish hue, and furnished with hairs.

The *palpi* are short, similar to the legs in colour, except the digital joint, which is of a yellow-brown hue; the cubital and radial joints are both very short; but the latter appears to be a little the longest, and has at the hinder extremity of the upperside a short, bent, pointed spine whose tip is of a dark blackish colour; the digital joint is large, and the palpal organs simple, though prominent at their hinder extremity; they are completely encircled by a strong black tapering spine, which is very visible close beneath the margins of the joint.

The *fulves* are of the usual characteristic form, and similar in colour to the cephalothorax.

The *maxillæ*, *labium*, and *sternum* are rather paler in colour than the cephalothorax, but present nothing at variance with the generic type; the *sternum* is finely clothed with coarse hoary hairs.

The *abdomen* is oval and projects considerably over the base of the cephalothorax; it is of a yellowish brown colour, clothed with hoary, yellowish, and blackish hairs intermixed; it has a narrow ill-defined dark brown longitudinal central bar on the fore half of the upperside, cruciform at its hinder part, and followed by a series of angular lines or chevrons to the spinners; these lines terminate laterally in indistinct spots or blotches; and outside the two or three hindermost blotches are some ill-defined spots or patches of hoary hairs, of which there are some more in two tufts just above the spinners; the underside is of a dull brownish yellow hue, clothed with greyish hairs and with pale lateral margins.

An adult female, evidently of the same species, is considerably larger, and the abdomen covered with cretaceous white spots; the longitudinal central brown marking on the fore half of the upperside is broader, better-defined, and angular on its lateral margins, and the spots laterally terminating the succeeding angular bars are well defined, forming two longitudinal rows converging to the spinners: the underside has a broadish longitudinal brown band; and the spinners are surrounded by several short blackish radiating elongate spots or short bars. The usual supernumerary mamillary organ is present, together with calamistra on the metatarsi of the fourth pair of legs; the latter, however, do not exist in the males.

Two adult males and two females, one adult, the other immature, were beaten from the branches of the Sont Acacia in lower Egypt in February 1864.

FAM. AGELENIDES.

Gen. TITANÆCA, Thor.

TITANÆCA DISTINCTA.

Amaurobius distinctus, Cambr. P. Z. S. 1872, p. 263.

Titanæca albomaculata, Sim. Arachn. de France, i. p. 218, pl. iii. fig. 7.

Adults and immature examples of this Spider were found among the dead stems and débris of bushes and under stones near Alexandria in April 1864. In the same month of the year following I met with it more abundantly under stones and fragments of rock and among débris on the plains of the Jordan.

The synonymic reference above to M. Eugène Simon's 'Arachnides de France' is, I feel sure, correct; but there seems much reason to doubt the correctness of the reference quoted by that author from M. H. Lucas's 'Exploration en Algérie'; the *Epeira albomaculata*, Luc., seems to me by no means certainly of the same species, or even genus, as that described and figured *l. c.* by M. Simon.

Gen. AGELENA.

AGELENA LEPIDA, sp. n.

Adult male, length 3 lines; adult female, $3\frac{1}{2}$ lines.

The whole of the fore part of this Spider is yellow. The *cephalothorax* has its surface clothed with a grey pubescence; it is marked with somewhat irregular blackish-brown radiating lines following the direction of the normal grooves and indentations, and bounded laterally by another broken or interrupted line of the same colour a little way from, and parallel to, the lateral margins, giving the surface of the *cephalothorax* a somewhat boldly reticulate appearance.

The *eyes* are in the ordinary position, forming two strongly curved and nearly parallel lines, whose convexity is directed backwards. The interval between those of the hind central pair is a little greater than that between each and the lateral eye of the same row on its side; those of the fore central pair are the largest of the eight, they are separated by less than a diameter's interval, and each is very nearly contiguous to the lateral of the same row on its side. The four central eyes form a quadrangular figure whose longitudinal is rather greater than its transverse diameter.

The *legs* are long and tolerably strong, their relative length apparently 4, 1, 2, 3; the difference, however, between those of the second and third pairs is very slight. The femora are thickly and irregularly banded with blackish brown, they are furnished with hairs and long spines; and each tarsus ends with three slightly curved claws, of which the superior pair are pectinated, and the inferior one is much the smallest.

The *palpi* are short and strong; the radial and cubital joints are very short; the latter is the longest, and has a short, moderately strong, bifidly angular prominence at the extremity of its outer side; it has also two long strong curved tapering bristles directed forwards from its upperside, one from the fore, and the other from the hinder extremity; the radial joint is also somewhat protuberant in front towards the outer side, and is furnished with two pairs of bristles, of the same kind as those on the cubital joint; the digital joint is large equalling the falces in length, and its fore extremity is drawn out into a longish point. The palpal organs are well developed, surrounded on their outer margin with a strong shining corneous-looking yellow-brown fillet, and terminating anteriorly with a strong twisted corneous process of a similar colour.

The *falces* are rather long, strong, straight, prominent in front near their base, and directed rather backwards towards the labium.

The *maxillæ* and *labium* are of normal form, the latter being a little suffused with a dusky blackish hue.

The *sternum* has a strong irregularly edged blackish margin.

The *abdomen* is of a dull yellowish colour, with a broad longitudinal whitish band on its upperside; this band is mottled, and at the fore part strongly suffused with rusty red; its lateral edges are crenellated or bluntly denticulate, the prominent points being distinctly whiter and brighter than the rest, and forming two nearly parallel

longitudinal rows of bold whitish spots along the whole length of the abdomen; most of these spots are in fact the enlarged extremities of the usual transverse angular bars or chevrons; and between each the space is black; there are also some black spots and markings on the sides, the underparts of the abdomen being unicolorous; the central longitudinal band has some black spots and markings on its fore part irregularly defining the normal elongate marking; the spinners are yellow, devoid of markings, and those of the superior pair are rather more than double the length of those of the inferior, the second (terminal) joint being smaller, though longer, than the basal one.

The female resembles the male in colour and markings; these are, however, less strong and distinct than in the latter sex, while the legs of the female have the tibiæ as well as the femora annulated with dusky blackish, and the underside of the abdomen has two longitudinal lateral lines of the same hue. The genital aperture presents two oval orifices side by side.

An adult male and several adult and immature females were found in tufts of coarse grass and dry herbage on the desert near Gebel y Silsilis, Upper Egypt, in March 1864.

Gen. TEGENARIA.

TEGENARIA PROXIMA.

Tegenaria proxima, Cambr. P. Z. S. 1873, p. 217.

An adult male of this Spider, which, though exceedingly closely allied to *T. derhamii* (Scop.), is yet quite distinct, was found in Cairo in January 1864.

Gen. TEXTRIX, Sund.

TEXTRIX COARCTATA.

Aranea coarctata, L. Duf., Sim. Arachn. de France, ii. p. 125.

Textrix moggridgii, Cambr. Journ. Linn. Soc. xi. p. 537, pl. xiv. fig. 6.

Adult and immature females of a Spider which I believe to be of this species were found among stones and débris at Alexandria in April 1864; the adult examples, however, are more brightly coloured than those I have received from Mentone; the cephalothorax and legs being of an orange-yellow brown colour; the fore part of the former (caput) and the falcæ are tinged strongly with red-brown, and the median line of the fore part on the upperside of the abdomen suffused with rusty red. These differences of colouring are probably dependent on the length of time that had elapsed since the Spider effected the final casting-off of its skin.

Gen. ENYO.

ENYO NITIDA.

Enyo nitida, Aud. in Sav. Egypte, p. 135, pl. iii. fig. 7.

Clotho nitida, Walck. Ins. Apt. i. 639.

An adult female of an *Enyo* which I believe to be of this species was found under a stone near Alexandria. It may, however, possibly be

of a different species, though it agrees in most respects with the descriptions given (*U.c.*). The chief difference I can detect is in the colour of the legs; but as this may differ considerably in examples of different ages or in different states of preservation, it is not always conclusive on a point of specific identity. In the example now recorded the legs are yellow, the greater part of the femora of the first pair as well as lower part of those of the other pairs being suffused strongly with brownish black; the cephalothorax is deep reddish brown, becoming black on the caput; the sternum and labium are yellowish strongly suffused with deep brown, the maxillæ and palpi being dull yellowish; and the abdomen is of a uniform purplish black above and on the sides, the underside being of a dull yellowish drab colour; the legs are furnished with short dark blackish brown hairs.

In the description given of *E. nitida* by Walckenaer the legs are said to be black, with a white ring at their base, and another of greater extent at the base of the femora of the third and fourth pairs.

ENYO EXPERS, sp. n.

Female, immature, length 1 line.

The whole of the fore part of this Spider is of a brightish yellow colour, the legs, palpi, and sternum being rather the palest.

The *cephalothorax* is of a somewhat oblong oval form with little or no lateral constriction at the caput; its convexity also is very moderate; the clypeus, which equals in height half that of the facial space, is very projecting.

The *eyes* are in the ordinary general position: the two large fore central ones are on a large roundish black patch; and the three lateral ones on either side are contiguous to each other and form a short curved row on either side, the foremost eye being very nearly contiguous to the large eye on its side; the interval between the fore central eyes is nearly an eye's diameter.

The *legs* are not very long; their relative proportion appears to be 4, 1, 2, 3; and they are furnished with hairs only.

Falces not very long, but strong, conical, and vertical.

Abdomen oblong-oval; of a dull yellow colour, the upper part dark rusty red, with several indistinct slightly angular pale bars or chevrons on the hinder half. The spinners (apparently four in number) are not easily discernible; but on either side of them is a patch of deep rusty brown.

A single example of this Spider (differing both in its general form and colour from all others known to me) was found under a stone at Alexandria in the month of April 1864.

FAM. HERSILIIDES.

GEN. HERSILIA, Sav.

HERSILIA CAUDATA? var. (aut nov. sp.). (Plate LVIII. fig. 6.)

Hersilia caudata, Sav. Egypte, p. 114, pl. i. fig. 8.

In respect to this Spider, the type of the genus, all authors subse-

quent to Savigny appear merely to have followed him in his figure and description. The locality given for *H. caudata* is "les environs du Caire." On the first morning of my arrival at Cairo, in January 1864, I found a species of *Hersilia* frequent on the trunks of the trees in the Esbekeyah, close in front of Zeck's hotel; all were females, in different stages of immaturity. Numerous searches there and in other parts round Cairo failed to produce more than this one species, which I met with again several times during the ascent of the Nile to Assouan. I did not find any other species (except one, of a now separated genus *Hersilidia*, under stones at Alexandria) during my stay in Egypt. I cannot, therefore, help thinking that, in spite of very manifest differences between my specimens and the figure and description of *Hersilia caudata* given by Walckenaer and Lucas (following Savigny), the species I now record is that upon which the latter author founded the genus.

The following description of the examples I met with may perhaps call the attention of araneologists to the differences noted; and possibly the true *H. caudata* may eventually prove to be a distinct species, in which case I would propose for that now described the name *Hersilia diversa*.

The length of the largest immature female captured is rather over $3\frac{1}{2}$ lines. The colour of the cephalothorax is a deep blackish brown, rather the palest along the middle line, on the hinder slope, and a little above the lateral margins; the upper part of the caput is black, with a short brightish orange-yellow longitudinal streak on the hinder part between the eyes of the hind central pair. The clypeus (which equals in height two thirds of that of the facial space) is orange-yellow above and dull yellow on its lower part, the middle of which has a short longitudinal white streak with a blackish patch on each side of it. This arrangement of colours gives a very distinct and diversified appearance to the "facies," and appears to be pretty well defined in all the examples met with (*vide* fig. 6 b).

The *legs* are of a dull yellowish hue, marked and broadly annulated with yellow and blackish-brown; these markings form a broken longitudinal line of deepish black-brown on the fore sides of the femoral joints.

The *palpi* are similar to the legs in colour, and marked with black-brown on their upper or fore sides.

The *abdomen* is of a dull yellowish brown above, thickly punctuated with pale yellowish points mixed with a few blackish spots here and there, chiefly near the cephalothorax, the lateral margins of the upperside of the abdomen are very distinctly defined by the inner edge of the black markings on the sides; this well-defined edge is denticulate or strongly crenellated; along the middle line of the fore half is a strong and very distinct black longitudinal marking, denticulate or irregularly jagged on its edges; this marking is broadest near its middle, and comes to a blunt point about two thirds of the distance from the cephalothorax to the spinners, and is followed by some broken angular bars, or chevrons, which decrease in length towards the hinder extremity of the abdomen; in addition to the

above markings, there are four pale transverse wavy lines, which cross the whole of the upperside of the abdomen, the two foremost, however, being interrupted by the longitudinal black marking; the sides of the abdomen are marked, but not regularly, with blackish brown spots and small markings, some of them assuming an oblique direction; but none of the lateral markings extend far down towards the underside, which is (as are also the sternum, maxillæ, and labium) of a plain yellowish hue devoid of markings. The long spinners of the superior pair are dull yellow faintly marked or annulated with yellowish brown, or sometimes with brownish black.

The description given by Walckenaer and Lucas from Savigny (I am unfortunately unable to give it from Savigny's work itself) is:—"Roux; le corselet marqué de deux bandes dorsales brunes, et bordé de taches de la même couleur. Abdomen varié sur le milieu de deux rangées contiguës de taches cannelées brunes, et sur les côtés, de traits bruns obliques."

The quickness of the movements of this spider, which, until disturbed, lies motionless, with its legs flat and extended in all directions over and round the trunks of the trees, is astonishing, and rendered its capture, at first, very difficult; after a little practice, however, I obtained it more easily by dexterously flicking it off the tree with a twig into an entomological net held underneath.

This was the first Spider that I had seen in Egypt; and it was thus invested with a peculiar interest, being also so unlike any thing European that I had before met with.

Neither sex appears as yet to have been found in the adult state; and in fact I saw, and captured, only females, and all those immature. Walckenaer does not state whether the example (also a female) described by Savigny was adult or immature.

It does not appear to have been before noted that the subdivision of the metatarsi (on which the separation of *Hersilia* from *Hersilidia* is chiefly based) only occurs in respect to the legs of the first, second, and fourth pairs, the short third pair having the usual number of joints, with an undivided metatarsus. It is singular that M. Lucas, who has gone so minutely into the structure of the legs of *Hersilia*, should not have noticed this point.

Gen. *HERSILIDIA*, Sim.

HERSILIDIA LUCASII, sp. n. (Plate LVIII. fig. 5.)

Adult male, length $2\frac{1}{2}$ lines.

The whole of the fore part of this Spider, whose general form closely resembles other species of the genus, is of a pale yellow colour, the cephalothorax, palpi, and legs being covered with a fine grey pubescence; the *cephalothorax* has a dusky brown margin; and an indistinct line of the same hue runs backwards from each eye of the hind central pair, meeting and terminating at the normal indentation which marks the union of the caput and thorax; the hinder slope has also a central longitudinal brown line.

The *eyes* are in the usual position; the four central ones form a

square whose fore side is a little longer than the hinder side, the two eyes forming the fore side being the largest of the eight, and separated from each other by an interval of rather more than an eye's diameter.

The *legs* are strong, but of more moderate length as compared with those of *Hersilia*, and the metatarsi are undivided; their relative length appears to be 4, 2, 1, 3, those of the first and second pairs are unicolorous, while the femora and, in some examples, the tibiæ of those of the third and fourth pairs are faintly annulated with dusky brown; they are furnished with hairs and a few short fine spines.

The *palpi* are strong and moderately long; the radial and cubital joints are short, about equal in length, and of a somewhat tumid or nodiform appearance; the humeral joint has a few black spines dispersed on its upperside, and there are a few bristles on the other joints; the digital joint is drawn out at the fore extremity into a longish point (like that of the genus *Tegenaria*) and terminates with two black, slightly curved claws, in this point resembling *Hersilidia simonii*, Cambr. (found in the Jordan valley and at Jerusalem). The palpal organs are of a somewhat flattened circular form, encircled with a dark corneous margin or closely fitting spine, and have two small erect corneous processes near together, about the middle of their fore part, one of these processes being shorter and more obtuse but stronger than the other.

The *falces*, *maxille*, and *labium* are of normal form; and the *sternum* has a broadish dusky-brown lateral margin.

The *abdomen* is of an oblong-oval form, a little broadest towards its hinder part, rather truncate before, and projecting a little over the base of the cephalothorax; it is of a straw-yellow colour, clothed with a fine grey pubescence; on the upperside a well-defined longitudinal black-brown marking occupies the middle line; this marking begins near the fore margin and extends halfway to the spinners, and is very strongly angulated on its edges, the middle part being the strongest, and taken by itself forming a large diamond-shaped patch; the sides are marked with three or four oblique lines of small elongated brown spots reaching quite to the underside, which is of a plain dull luteous colour; the spinners are short compared with those of *Hersilia*, but similar in position and character, and resembling the legs in colour.

The female (immature) resembles the male in colours and markings.

This species is nearly allied to *Hersilidia simonii*, Cambr.; but, besides being larger, it differs both from that species and from *H. oraniensis*, Luc., in being of a different hue and much less strongly marked, especially in the annulation of the legs; the pattern also on the abdomen differs notably from that of *H. simonii*; and there are on the abdomen none of the coarse hairs with which that of *H. simonii* is furnished. Two adult males and several immature examples of both sexes were found under stones in the desert between Alexandria and Ramleh. Their position is usually with the legs extended flat upon the underside of the stone, with the sandy-

yellow mottled colour of which the colour of the Spider so admirably agrees that it requires a practised eye to detect it; and in fact its movement is generally the first cause of its detection. Its specific name is conferred in compliment to M. H. Lucas, of the Jardin des Plantes, Paris, to whom we are indebted for descriptions and figures of so many North-African Spiders.

Fam. SCYTODIDES.

Gen. LOXOSCELIS, Heinek. et Lowe.

LOXOSCELIS RUFESCENS.

Loxoscelis rufescens, Duf. An. Sc. Phys. t. v. p. 203, pl. 76.

Scytodes rufescens, Sav. Egypte, pl. v. fig. 2.

Adult and immature females of this Spider were found among the ruins of an old mud wall near Cairo, and an immature male in a similar situation at Alexandria.

Gen. SCYTODES.

SCYTODES THORACICA.

Scytodes thoracica, Walck. Ins. Apt. i. p. 271.

An immature female of a Spider which is probably only a variety of this species, was found in an old building at Cairo. The only apparent difference between this example and the typical *S. thoracica* consists in the very faintly marked cephalothorax, the abdomen marked only with two converging rows of black spots on the hinder half, and the legs wholly immaculate. The discovery, however, of adult examples may possibly prove it to be of a distinct though closely allied species; at present it would scarcely be justifiable to found a new species upon a single immature example.

Dr. L. Koch (*Ägyptische und Abyssinische Arachniden*, Nürnberg, 1875, p. 27, Taf. iii. fig. 2) describes and figures a new species from Cairo (*S. immaculata*); from this, however, the present Spider differs quite as much as from the typical *thoracica*, though possibly it may eventually prove to be a variety of Koch's Spider instead of *S. thoracica*.

SCYTODES KOCHII, sp. n.

Female, immature, rather over $1\frac{1}{2}$ line in length.

Although the cephalothorax of this Spider is but little higher at its posterior than at its anterior extremity, it is, I believe, a true *Scytodes*. The clypeus is broad, truncate, and a little upturned at its lower edge, its height being about equal to the dimensions of one of the fore central pair of eyes; the colour of the cephalothorax is a rather bright orange-yellow, with a deep-brown band running backwards from each lateral pair of eyes nearly, if not quite, to the hinder margin; these bands are broadest about the middle, and each is marked with a slightly oblique longitudinal stripe of orange-yellow near the fore extremity; and between them is a deep-brown tapering line running a little way backwards from the central pair of eyes. The

cephalothorax is also strongly margined with dark brown; and each of its sides is marked with three short, but distinct, oblique brown bars or stripes joining in at their lower extremity with the lateral brown margins. The surface of the cephalothorax is closely covered with erect bristly hairs.

The *eyes* are in three pairs, in the usual position; the two fore lateral eyes are the largest, and those of the central pair appear to be the smallest, though not much, if any thing, smaller than the hind laterals.

The *legs* are yellow; the tibiæ of the fourth pair are broadly and distinctly banded with brown; those of the third pair are faintly so banded, while those of the first and second pair are dark yellow-brown with a narrow indistinct band of yellow, the metatarsi also of the first pair being strongly suffused with yellow-brown.

The *palpi* are yellow, annulated with dull brown.

The *falces* yellow, with a considerable part of their foreside yellowish brown.

The *maxillæ*, *labium*, and *sternum* are yellow.

The *abdomen* is of a deep chocolate-brown above and yellow underneath; the central longitudinal line of the upperside is a little paler, and has two yellow spots on its fore part, and a yellow longitudinal line on its hinder part; the brown and yellow of the upper- and undersides run into each other in a Vandyke pattern, giving the sides a very distinct curvilinearly striped appearance. The abdomen, like the cephalothorax, is covered thinly with strong erect bristly hairs.

A single example of this pretty and very distinct species was found among débris near Cairo in January 1864; and I have very great pleasure in naming it after my kind friend Dr. Ludwig Koch, of Nürnberg.

Fam. PHOLCIDES.

Gen. PHOLCUS, Walck.

PHOLCUS SEMICAUDATUS, sp. n.

Adult male, length 2 lines.

The *cephalothorax* is of the ordinary form and of a pale straw-yellow colour.

The *eyes* are in the usual general position; three large eyes contiguous to each other in a triangle on a tubercle on either side, and a pair of much smaller size and nearly contiguous, just opposite the inner eyes of the other two groups; each eye of this pair is rather less than a diameter's distance from the two foremost eyes of the lateral group nearest to it.

The *legs* are very long, exceedingly slender, and furnished with fine hairs; their colour is similar to that of the cephalothorax, the genual joints are yellow-brown; and the femora and tibiæ, especially the former, are distinctly marked with small linear black dots and spots.

The *falces* are suffused with yellow-brown, strongly excavated in front, their fore margin on the outer side terminating in a corneous point, and of a red-brown colour.

The *palpi* are large, similar in colour to the legs, strong and tumid, especially the radial joint, which is of a somewhat globular form. The digital joint is considerably produced at its fore extremity (the produced portion being dark yellowish brown), and terminating with an irregular corneous process. The palpal organs are globular, with a strong corneous process issuing from them and directed backwards; this process is of a dark red-brown colour mixed with black, of a somewhat twisted form, and very obtuse at its extremity.

The *maxillæ* are of the usual form, pale yellow at their base and dark brown at their fore part, the extreme point being whitish.

The *labium* is also dark brown, but pale whitish at its apex.

The *sternum* is dark brown, marked obscurely with some still darker radiating lines.

The *abdomen* is of moderate length, very convex above, gradually and considerably elevated backwards and, in a slightly produced form, at its hinder extremity, giving it a subtriangular shape when looked at in profile; this elevation is much stronger in the female than in the male; it is of a dull luteous colour; the fore half of the upperside has an indistinct elongate central longitudinal marking, sometimes pretty distinctly defined by a fine blackish marginal line; this marking is broadest in the middle, where it has an angular point and short oblique line running from it backwards on each side, with a similar point and line on either side of its obtuse termination; following this are two or three duplex angular blackish bars, or chevrons, continued by some fine linear spots and markings towards the spinners; and on either side of the highest point of the abdomen are two or three blackish irregular spots. The different examples vary in the number, extent, and regularity of these markings; in some specimens most of them are obsolete or nearly so. A broad black and red-brown band occupies the central longitudinal line of the underside, but is usually interrupted a little way from the spinners.

The female resembles the male in colours and markings; but her abdomen, as above observed, is more strongly elevated behind, and its markings are generally better-defined; the genital aperture is a large transverse slit in a strongly but gradually elevated epigyne.

The form of the abdomen, which approaches but is not nearly so produced as that of *P. caudatus* (Duf.), will readily distinguish this species.

I met with it pretty frequently among the ruins of the ancient temples in various parts of Egypt above Cairo, but principally in those above Thebes. It is very nearly allied to, but appears to be quite distinct from, *Pholcus lyoni*, Bl., found in the Calcutta Presidency of India, and which I have myself also received from Bombay (sent to me by Major Julian Hobson) as well as from Calcutta, sent to me by C. Curtoys, Esq.

PHOLCUS RIVULATUS.

Pholcus rivulatus, Sav. Egypte, pl. iii. fig. 12.

? *Pholcus ruralis*, Blackw. Ann. & Mag. N. II. (3) vol. i. p. 432.

Adult and immature examples of both sexes of this Spider were

found in old buildings and under large stones at Alexandria and Cairo. A strong specific character, not before recorded, so far as I am aware, of the adult male, is furnished by a single longitudinal closely set row of short but distinct and rather strong black spines, reaching from near the base on the underside of the femora nearly to the anterior extremity of the tibiæ of the first pair of legs.

This Spider, described by Mr. Blackwall (*Pholcus ruralis*, l. c. *suprà*), is probably of this species.

Fam. THERIDIIDES.

Gen. LATRODECTUS, Walck.

LATRODECTUS EREBUS.

Latrodectus erebus, Sav. Egypte, pl. iii. fig. 9.

Adult females, with their large globular brown egg-cocoons, were found under stones among the ruins of an old building at Alexandria.

Dr. Thorell (Europ. Spiders, p. 95) rejects the derivation of Walckenaer's generic name *Latrodectus* from *λάτρον*, wages or reward, and *εκτός*, received, as yielding no rational meaning for the name, and thence derives it from *λάθρα*, secretly, and *δγκής*, biting. Those, however, who have looked most closely into the derivations of names given to genera and species of animals know best how very little rational meaning there is in a large number of them, in cases where the derivation is almost, and sometimes absolutely, certain.

In a well-known instance a species of Lepidoptera was named by a British author "*decimella*," merely because he had pinned it with a number-*ten* pin. Another instance is furnished by Baron Walckenaer himself, who named a Spider "*Carolinum*" for (there is no doubt) the excellent reason (?) that it had been found by his little son Charles (*Carolus*). Rather than impute to the Baron the manifest impropriety of writing *Latrodectus*, if he had really derived it from *λάθρα*, I would suppose that he had some reason to look upon the discovery of the type of his genus as the happy result of some trouble or difficulty, and thus gave it the name (rightly written *Latrodectus*) from the Greek words given as its derivation by Agassiz (Nomencl. Zool.) and rejected by Dr. Thorell, i. e. *λάτρος* (a form of *λάτρον*), wages or reward, and *εκτός*, one meaning of which is *acceptable*. If this be "no rational meaning for the word," it appears to be, at any rate, more probable than the derivation given by Dr. Thorell. The derivation given by M. Simon, Hist. des Araignées, p. 177 (also rejected as irrational by Dr. T.), from *λάτρεις*, a workman, and *δγκής*, a biter, would not be improbable, since we find that Walckenaer (Aranéides de France, p. 81, where he confers the name) remarks especially on the manner in which the Spider spins its snares for the entrapping of its prey beneath the stones.

Gen. LITHYPHANTES, Thor.

LITHYPHANTES HAMATUS.

Phrurolithus hamatus, Koch, Die Arachn. v. p. 105, pl. 206. fig. 507-8.

Lathrodectus hamatus, Cambr. P. Z. S. 1872, p. 288.

Adult females were found under stones near Alexandria in April 1864. It is an exceedingly variable species in respect to its markings: two of those met with had an entirely black abdomen; and the rest varied considerably in the extent and colour of the normal pattern; most probably the *Phr. lunatus* and *Phr. erythrocephalus* (Koch), l. c. fig. 509, 510, as well as *Lathrodectus venator*, Sav. Egypte, pl. 3. fig. 11, and *Lathrodectus ornatus*, Luc., Explor. in Algér. p. 233, pl. 14. fig. 8, are varieties of this species.

The chief, if not the only, difference between *Lathrodectus* and *Lithyphantes* consists in the wide separation of the eyes of the lateral pairs of the former, whereas in the latter they are contiguous or nearly so.

Gen. STEATODA (Sund.).

STEATODA SIGNATA, sp. n.

Length of an adult female, $1\frac{1}{2}$ line.

This Spider is of ordinary form and general characters; the cephalothorax, falcæ, maxillæ, labium, and sternum are of an orange-yellow colour tinged with brown; the *legs*, whose relative length appeared to be 1, 4, 2, 3, are rather short and slender; they are of a dull pale yellowish colour, furnished with hairs only, and the femora, especially of the first and second pairs, are strongly suffused with a dusky brown hue.

The *abdomen* is short, oval, very convex above, though rather flat on the upperside, abruptly rounded behind, and projects considerably over the base of the cephalothorax; it is glossy, and clothed thinly with fine pale hairs; its colour is a uniform kind of maroon or purplish red-brown, marked on the upperside with some elongate pointed oval pale dull yellowish markings, more or less covered with cretaceous white spots; three of these markings are situate on each side of the upper part, at equal intervals from the fore to the hinder extremity, the rest form a broken longitudinal central line on the hinder half. The four foremost of these markings form a large square whose fore side is a little shorter than the rest.

A single example of the female of this species, which at first sight very nearly resembles *Asagena serratipes* in the colour and markings of the abdomen, was found under a large stone at Alexandria.

STEATODA? MANDIBULARIS.

Theridion mandibulare, Luc. Explor. en Algérie, p. 260, pl. 17. fig. 1.

Pachygnatha? mandibularis, Cambr. Spid. Palest. and Syria, P. Z. S. 1872, p. 294.

Steatoda mandibulare, Sim. Bull. Soc. Ent. Fr. 1875, p. 222.

Epeira diversa, Bl. Ann. & Mag. N. II. Oct. 1859.

Adult males of this remarkable Spider were found running on the

rails of the railway near Cairo, and females under stones near Alexandria.

In "Spiders of Palestine and Syria," *l. c. supra*, doubts are expressed as to its generic place. It still appears to me that it can hardly be included in any hitherto characterized genus, though at present I hesitate to form a new genus for its reception. It is probably nearer to *Steatoda* than to any other; yet the very different form of the cephalothorax, in both sexes, appears to preclude it from that genus, to which, however, in deference to M. Eugène Simon's opinion, I now provisionally relegate it, in preference to *Pachygnatha*.

Gen. EURYOPIS, Menge.

EURYOPIS ACUMINATA.

Theridion acuminatum, Luc. Explor. en Algér. p. 268, pl. 17. fig. 10.

An adult female was found under a stone near Alexandria.

EURYOPIS SCRIPTA.

Theridion scriptum, Cambr. P. Z. S. 1872, p. 283.

Adult females were found under stones near Alexandria in April 1864.

EURYOPIS QUADRIMACULATA, sp. n.

This Spider resembles the two foregoing in respect of size, general form, and characters, but may be easily distinguished by a different distribution of colours on the abdomen. This part in the present Spider is of a deep brown-black colour marked with four elongate brownish yellow spots on the upperside, one at the fore and another at the hinder extremity, and another on each side, a little nearer to the fore than to the hinder spot; these lateral spots are the longest, and are placed obliquely, their inner extremities nearly meeting; the underside has a pale dull yellow transverse bar just behind the genital aperture, and another close in front of the spinners, the two being connected, or nearly so, by a longitudinal line of the same hue.

The *palpi* are short, the radial and cubital joints very short, but nearly equal in length; the digital joint is very large, and the palpal bulb well developed, a strong sinuous red-brown line (indicating, no doubt, the passage of an internal channel) may be seen on the outer side; and from the fore extremity there projects a strong, pointed dark red-brown corneous process, slightly curved and pointing backwards and a little outwards. An adult male and female were found near Alexandria under stones.

Gen. THERIDION, Walck.

THERIDION RUFOLINEATUM.

Theridion rufolineatum, Luc. Explor. en Algér. p. 260, pl. 16. fig. 10.

Theridion spirifer, Cambr. Zool. 1863, p. 8574, and P. Z. S. 1872, p. 280.

It appears, from a comparison of examples I have received

from Algeria, pretty certain now that the Spiders referred to in the above synonyms are identical. Adult females were found on low plants near Alexandria in April 1864.

Theridion varians.

Theridion varians, Koch, Die Arachn. xii. p. 134, pl. 428. fig. 1056, 1057; Camb. P. Z. S. 1872, p. 280.

Adult females, of the same species as that found near Jericho in 1865, were found on low plants near Alexandria, and are, I think, quite correctly assigned to *T. varians*, Koch.

Theridion spinitarsis, sp. n. (*Dipæna*, Thor.?).

Adult female, rather more than $1\frac{1}{2}$ line in length.

This Spider is of ordinary form, but of a stronger build than usual. The whole of the fore part is of a dull orange-yellow colour, the caput having a longitudinal central black stripe running from the eyes to the thoracic junction. The *legs*, whose relative length is 1, 2, 4, 3, are tolerably strong and moderately long; they are similar to the cephalothorax in colour, with the fore extremities of the tibiæ slightly marked with deep red-brown; they are more hairy than usual, the metatarsi being armed (particularly on their undersides) with long fine spines. The other joints also had, it is probable, originally been similarly furnished; but if so most of them had lost a great part of this armature by trituration.

The *abdomen* is oval, abruptly rounded, in profile, at its hinder extremity, and projects over the hinder slope of the cephalothorax; it is hairy, and of a yellow-brown colour thickly mottled with whitish-yellow cretaceous spots; the upperside has a broad longitudinal pale yellowish white dentated band running down the centre from the fore margin to the spinners, getting slightly narrower as it leaves the middle of the abdomen and goes backwards; on either side of the hinder extremity of this band there are some ill-defined dark red-brown markings. The sides are Vandyked by some fine red-brown lines, one of which crosses over the upperside near the middle, and two others over the fore part; the underside is of a dull yellowish brown colour, with a large, somewhat quadrate, yellowish white transverse band across the middle.

A single example of this Spider was found on a low plant near Cairo. In the absence of the adult male I hesitate to include it in the genus *Dipæna*, Thor., to which it will very probably be eventually found to belong.

Theridion melanostictum, sp. n.

Adult female, length $1\frac{2}{3}$ line.

This pretty species is nearly allied to *T. denticulatum*.

The *abdomen* is large and globular, and projects considerably over the base of the cephalothorax; it is of a yellowish colour, pretty thickly mottled above and on the sides with white cretaceous spots, and also marked with black spots and markings. In some examples the upperside is likewise tinged with reddish brown, giving a kind

of tortoise-shell-marked appearance. The unequal distribution of the white spots faintly indicates a longitudinal central dentated band, which decreases in width as it approaches the spinners; and the black spots are chiefly arranged in a longitudinal line on each side of this band. The sides are marked with a strongish curved black bar towards the fore extremity, between which and the spinners are two or three oblique black markings, sometimes consisting of a mere spot or two, sometimes of a short continuous line. The underside has a large somewhat oblong transverse patch in the middle, which (lying between its ends) appears to continue the curved lateral bars.

The *cephalothorax* is of a somewhat orange-yellow colour, strongly margined with dusky black, and with a similarly coloured longitudinal central bar from the eyes to the indentation where the caput and thorax unite. The clypeus equals two thirds of the facial space in height; it is prominent and divided longitudinally by a blackish bar.

The four central *eyes* form as nearly as possible a square; and those of each lateral pair are contiguous to each other, and obliquely placed on a tubercle; the intervals between the eyes of the foremost row appear to be as nearly as possible equal, while the interval between the fore central pair is greater than that between each and the fore lateral eye next to it.

The *legs* are long and slender, their relative length 1, 2, 4, 3, those of the first pair being considerably the longest; they are yellow (sometimes dull orange), the fore extremities of the joints being more or less extensively marked with dark reddish brown; their armature consists of hairs and bristles only, the latter being rather conspicuous on the tibiae and metatarsi.

The *maxillæ* and *labium* are of normal form and similar to the cephalothorax in colour; the former have a largish dusky black patch on the outer side; and in some examples all the labium except the apex is of a similar colour.

The *falces* are not very long nor strong; they are similar to the cephalothorax in colour, and marked longitudinally with blackish along their inner sides in front.

The *sternum* is of a glossy blackish brown colour.

Several females, adult and immature, were found on low plants near Alexandria.

Gen. MIMETUS, Hentz (*Ctenophora*, Bl.).

MIMETUS MONTICOLUS.

Ctenophora monticola, Bl. Ann. & Mag. N. H. June 1870; Cambr. P. Z. S. 1872, p. 287.

A single female of this Spider was found on a prickly-pear plant near Cairo in January 1864, and is identical with those found in a similar situation at Beirût in the following year.

Gen. ERIGONE, Sav.

ERIGONE SPINOSA.

Erigone spinosa, Cambr. Spid. Palest. & Syr. P. Z. S. 1872, p. 292, pl. xiii. fig. 12.

Adult males of this very distinct species were found running on the metals and permanent way of the railroad near Cairo and Alexandria.

ERIGONE ALEXANDRINA.

Erigone alexandrina, Cambr. P. Z. S. 1872, p. 755, pl. lxxv. fig. 11.

Both sexes of this minute Spider were found on rushes and other plants growing in a marsh near Alexandria.

Gen. LINYPHIA, Latr.

LINYPHIA EXTRICATA, sp. n. (Plate LIX. fig. 7.)

Adult male, length $1\frac{1}{3}$ line.

This Spider, which is allied to *L. nigrina*, Westr., resembles it in form, general appearance, and colours.

The *cephalothorax* is of a dusky yellow-brown colour, with indistinct radiating brown lines following the normal grooves and indentations. The height of the clypeus rather exceeds half that of the facial space; and the profile line of the cephalothorax (including the hinder slope) forms a slightly curved line.

The *eyes* are very nearly equal in size and in two equally curved lines, the curves directed away from each other, thus forming a transverse oval figure; those of the hinder row are equidistant from each other, those of the fore central pair (which seem to be larger than the hind centrals) being near together but not contiguous to each other, the interval dividing them being a little less than that which separates each from the fore lateral eye on its side. The line formed by the fore centrals is a little shorter than that formed by the hind centrals; and each of the former is separated by an interval of its own diameter from the latter nearest to it; those of each lateral pair are seated, slightly obliquely and contiguously to each other, on a tubercle.

The *legs* are long, slender, their relative length 1, 2, 4, 3, of a pale yellowish hue tinged with brown, furnished sparingly with hairs and a few short fine spines.

The *palpi* are moderately long, slender, and of a similar colour to the legs; the cubital joint is short; the radial equally short, but produced at its fore extremity on the upperside, the termination being rather broader than the joint and evenly rounded; the digital joint is large, with a slight (and from some points of view angular) prominence at its base on the inner side, and a large prominent lobe on its outer side about the middle. The palpal organs are highly developed and complex: among the corneous processes of which they are made up, the normal curved one at their base is of large size and peculiarly characteristic form; sometimes it lies in close proximity

to the rest of these organs; but generally it sticks out in a very noticeable way.

The *palces* are long and strong, divergent, and rather excavated on their inner sides near their extremities, where they are armed with several strongish teeth; they, as well as the *maxilla*, *labium*, and *sternum*, are of a similar colour to the cephalothorax.

The *abdomen* is of a longish oval form, and projects a little over the base of the cephalothorax; it is of a brownish black colour, with a large pale patch just above the spinners, but not touching them.

The female resembles the male in colours; but the abdomen is larger and more globular, and the genital aperture is furnished with a strong curved epigyne which is directed prominently backwards; the relative length of the legs also differs in the female, those of the fourth pair being distinctly longer than those of the second pair.

Adults of both sexes were found on plants and shrubs both at Cairo and Alexandria.

Gen. PACHYGNATHA, Sund.

PACHYGNATHA ARGYROSTILBA, sp. n. (Plate LIX. fig. 8.)

Adult male, length 1 line.

The *cephalothorax* looked at in profile has a uniformly sloping and very slightly curved outline from the hind margin to the eyes; the area of the four central eyes is rather prominent. The clypeus, compressed close beneath the eyes, but rather prominent at its lower margin, equals in height half the facial space; it is of an orange-yellow-brown colour, with three longitudinal (but not very definitely outlined) dark yellow-brown bands; the lateral bands unite in front on the lower part of the clypeus.

The *eyes* are seated on tubercles, and do not differ greatly in size; the four central ones are the largest, and of very nearly uniform size, forming a square whose fore side is a little the shortest; the intervals between these eyes are scarcely a diameter; the eyes of each lateral pair are contiguous to each other on a single tubercle, the foremost being, if there be any difference, the smallest of the eight; the interval between each of these and that one of the four central eyes nearest to it in the same row appears slightly to exceed the interval between those of the central pair in that row.

The *legs* are long and slender, their relative length being 1, 2, 4, 3; they are of a dull yellowish colour slightly suffused with brown at the fore extremities of the tibiæ and metatarsi, and well furnished with rather conspicuous hairs.

The *palpi* are slender, and similar to the legs in colour. The cubital joint is short, nodiform at its base on the upperside, and constricted near its fore extremity; the radial joint is about equal in length to the cubital, but is much stronger, especially towards its fore extremity.

The digital joint is large, and of the same peculiar form as in others of the genus, the smaller division being of a somewhat S-shape; the palpal organs are very simple, consisting of a compara-

tively enormous and perfectly globular semidiaphanous dull orange-yellow bulb, with a small twisted process at its anterior extremity.

The *falces* are long, strong, divergent, and excavated towards their fore extremities on the inner sides, where they are also armed with two sharp strongish teeth; their colour is similar to that of the cephalothorax.

The *maxillæ*, *labium*, and *sternum* are of normal character, and of a dark yellow-brown colour.

The *abdomen* is of a short oval form, considerably convex above, but not nearly globular, and projects well over the base of the cephalothorax; it is of a dark yellowish brown colour mixed with blackish patches and markings above, and sprinkled thickly, both above and on the sides, with resplendent silvery markings and spots. These are generally gathered into a large, but not very long, longitudinal band or patch on each side of the fore half, the rest being more or less irregularly scattered, though in some examples they may be traced somewhat more regularly in transverse lines.

The female is rather larger than the male, and her abdomen is much more nearly globular in form; but in respect of colours and markings, the sexes are, as nearly as possible, similar to each other.

Two adults of each sex were found on rushes and other plants in a marsh near Alexandria.

Although much smaller than any yet known species of this genus, it surpasses all of them in beauty; the silvery spangled abdomen and enormous palpal bulb will serve to distinguish it at a glance.

Fam. EPEİRIDES.

Gen. TETRAGNATHA, Latr.

TETRAGNATHA MOLESTA.

Tetragnatha molesta, Cambr. Spid. Palest. & Syr., P. Z. S. 1872, p. 295.

Three adult males of this Spider were found among rushes in a marsh near Alexandria.

TETRAGNATHA NITENS.

Eugnatha nitens, Sav. et Aud. Egypte, p. 118, pl. ii. fig. 2.

An adult female, of what I believe to be this species, was found on rushes in a marsh near Alexandria.

The fangs of the falces are very remarkable, being strongly and rather abruptly bent not far from the middle, with a strong conical protuberance, or tooth, on the hinder side between the bend and the articulation with the falx.

TETRAGNATHA FLAVA.

Uloborus flavus, Sav. et Aud. Egypte, p. 117, pl. ii. fig. 1.

An immature example of this Spider was found in the same situation near Alexandria as the last two species. The position of the eyes misled Audouin as to its generic affinity, which is undoubtedly with *Tetragnatha*.

TETRAGNATHA FILIFORMIS.

Eugnatha filiformis, Sav. et Aud. Egypte, p. 120, pl. ii. fig. 4.

An immature male and two adult females of this species were found in the same situation as the last, near Alexandria. The great prolongation of the posterior extremity of the abdomen (increasing its length by two thirds) makes the determination of this Spider easy.

TETRAGNATHA PELUSIA.

Tetragnatha pelusia, Sav. et Aud. Egypte, p. 119, pl. ii. fig. 3.

An immature female, of what I believe to be this species, was found near Cairo.

Gen. SINGA, C. Koch.

SINGA AFFINIS, sp. n.

This Spider is similar in size, form, and structure to *S. albobittata*, Westr. (*Epeira calva*, Bl.) : but an apparently constant difference in the abdominal pattern, and in some other points, convinces me that it is of a distinct though very nearly allied species. The upper-side of the abdomen in *S. albobittata*, has three broad longitudinal denticulate bands, the central one of a cream-white colour, and that on each side reddish yellow-brown ; these latter unite at their posterior extremities, and thus form a transverse band at that part ; these three bands are immaculate ; the central one distinctly terminates well inside of the transverse portion of the lateral bands, represented on this portion, at most, by a small yellowish spot. In *S. affinis*, however, these bands are not so vividly traced, and the lateral ones are of a dull blackish-brown hue, broken in upon and mottled with pale yellowish white, and they are connected at their posterior extremities by a very narrow bar, or simple line, the central band thus running to the same length as the lateral ones ; moreover the central band is divided longitudinally from end to end by a distinct tapering stripe of reddish brown (or other colour similar to that of the lateral bands) giving off lateral lines at intervals, which appear again to divide the central band in a transverse direction. The legs and palpi differ also from those of *S. albobittata* by being yellow, distinctly crenellated with brown ; the falces also have a brown patch at each end, the legs and palpi of that species, as well as the falces, being of an immaculate orange-yellow. Another difference is observable in the four central eyes ; these in the present Spider form an exact square, while in *S. albobittata* the form is of a quadrangle rather longer than broad.

Two females were found on low plants near Alexandria.

SINGA LUCINA.

Epeira lucina, Sav. et Aud. Egypte, p. 345, pl. iii. fig. 4 ; Cambr. Spid. Palest. & Syr., P. Z. S. 1872, p. 299.

Adult females of this Spider were found among rushes and plants in a marsh near Alexandria.

Mons. Eugène Simon (*Arachn. de France*, tom. ii. p. 123) states

in a note that the *Epeïra lucina* of Savigny is no other than the *Singa hamata*, C. Koch (*Epeïra tubulosa*, Blackw., &c.). I think, however, that this is not so. In the figure given by Savigny a very constant specific character is delineated in the pale markings on the two dark longitudinal bands on the abdomen: in *S. hamata* these are represented by markings which always completely divide the dark bands in a transverse direction, while in *S. lucina* these markings are always confined within the band as shown in Savigny's figure, and as observed constantly in the examples found in Egypt, and also in many more found in Palestine. I do not at all doubt the occurrence in Egypt of *S. hamata*, C. K., though I did not myself meet with it either there or in Palestine; but, for the above reasons, independently of its larger size, I feel sure that it is not the same as *E. lucina*, Sav.

Gen. ARGIOPE, Sav.

ARGIOPE AURELIA.

Argiope aurelia, Sav. Egypte, pl. ii. fig. 5.

Adult females of this fine Spider were found, not unfrequently, in the gardens and orange-groves at Shoubra and other places near Cairo, sitting in the midst of their large orbicular snares.

ARGIOPE STICTICALIS, sp. n.

It is with some hesitation that I give here as a new species some immature Spiders swept up among low herbage near Alexandria. It is possible that they are but the immature form of *A. aurelia*. In these young examples the abdomen is of a less flattened form than in that species, and is destitute of the transverse banding so distinct in the adult (and nearly adult) forms of *A. aurelia*, the uniform covering of minute cretaceous white points being only broken by a dull longitudinal branching line and here and there a blackish marking. The legs also, instead of being, as in *A. aurelia*, very distinctly annulated with black, are simply black-speckled, chiefly on the femora, and especially on those of the first pair.

Gen. CYRTOPHORA, Sim.

CYRTOPHORA OPUNTIÆ.

Cyrtophora opuntiae, Duf. An. Sc. Phys. tom. iv. pl. 69. fig. 3.

This Spider is abundant on the prickly pear, *sont acacia*, young date-palms, and other low trees and shrubs, near and above Cairo.

Gen. EPEÏRA, Walck.

EPEÏRA CHLORIS.

Epeïra chloris, Sav. et Aud. Egypte, pl. iii. fig. 5.

Adults of both sexes were found not unfrequently on low plants in Upper Egypt*.

* The Spider described as an *Argiope* (*Argiope epeïroides*) in Spid. Palest. & Syr., P. Z. S. 1872, p. 301, but which is certainly not an *Argiope*, is very nearly allied to *Epeïra chloris*, Savigny; it is, however, larger, of an even more elongated form, and differs in the pattern on the abdomen, as well as in the structure of the palpal organs.

EPEÏRA SUSPICAX, sp. n.

Epeïra apoclisa, Sav. et Aud. Egypte, pl. iii. figs. 1, 2.

Having carefully compared adults of both sexes of this Spider, found on rushes in a marsh near Alexandria, with the European form of *E. apoclisa* (*E. cornuta*, Clk.), I am convinced that it is of a distinct species. It is much larger than any examples I have ever seen of *E. cornuta*, the length of the adult male being $4\frac{1}{2}$ and 5 lines, and of the female nearly 7 lines; there are differences also, though slight, in the structure of the palpal organs of the adult male.

Inasmuch as the name *apoclisa* (Walck.) is now only a synonym of the older name *cornuta*, Clerck, it might have been well to distinguish the present Spider as *E. apoclisa*, Sav. et Aud.; but as, until lately, this specific name has been so long the one current for the European *apoclisa* (*E. cornuta*, Clk.), it will probably best avoid confusion to rename it as I have here done.

EPEÏRA PERPLICATA.

Epeïra perplicata, Cambr. Spid. Palest. & Syr., P. Z. S. 1872, p. 300.

Adults and immature examples of both sexes were found near Alexandria.

EPEÏRA CIRCE.

Epeïra circe, Sav. et Aud. Egypte, pl. ii. fig. 9.

Immature examples, of both sexes, of what I believe to be this species were found at Alexandria.

EPEÏRA DROMEDARIA.

Epeïra dromedaria, Walck. Ins. Apt. ii. p. 126.

Examples of this Spider were found both near Alexandria and Cairo.

EPEÏRA ATOMARIA, sp. n. (Plate LIX. fig. 9.)

Adult male, length $2\frac{3}{4}$ to $1\frac{3}{4}$ lines; adult female, rather over 3 lines.

This Spider is nearly allied to *E. chloris*, Sav., particularly in the position of the eyes; but it may easily be distinguished by a decided difference of markings, as well as by its less-elongated form.

The *cephalothorax* is of ordinary form; its colour is yellow, clothed with rather coarse yellowish hairs, particularly on the caput; the oblique indentations, showing the junction of the caput and first thoracic segment, are broadly and distinctly marked with reddish brown.

The *eyes* are in the usual four pairs, rather small, and not very different in size; those of the hind central pair are near together (divided by about an eye's diameter), while those of the fore central pair are rather the largest of the eight and divided by a little more than two diameters, this interval being equal to that between each of them and the hind central eye on its side; the interval between

each fore central and the fore lateral on its side is less than that between the fore centrals, while that between each hind central and the hind lateral on its side is very much greater than that between the hind centrals, being equal to about (or nearly) double the length of the line formed by these latter; those of each lateral pair are seated obliquely, but not quite contiguously, on a tubercle.

The *legs* are moderately long and not very strong; they are like the cephalothorax in colour, the femora being spotted with black, principally on their outer sides, the other joints are also marked and irregularly banded with black; they are furnished with hairs and spines; those of the second pair are distinctly longer than those of the fourth. In some examples the legs were more or less completely wanting in the black markings and spots.

The *palpi* are short and similar in colour to the legs; the radial and cubital joints are very short, the latter is prominent and somewhat angular on its upperside, where it is furnished with two long, strong, curved, tapering bristles; the digital joint is large, and of an elongate-oval form; the palpal organs are highly developed and complex, one of the corneous processes near their centre having two prominent, curved, horn-like spines.

The *falces* are moderate in length, but not particularly powerful; and their colour is yellow, with a large blackish patch near their base in front.

The *maxillæ* and *labium* are of normal form; and their colour is blackish, broadly tipped with pale yellow.

The *sternum* is oval, pointed behind; and its colour is blackish, marked with a broad, yellow, T-shaped marking on its fore part, followed near the middle by a somewhat diamond-shaped patch of the same colour.

The *abdomen* is of rather large size, and of a regular oval form, and projects considerably over the base of the cephalothorax; it is thinly clothed with hairs and bristles; some of the latter are long, of a pale yellowish colour, and of a spine-like character. Its colour is a straw-yellow, marked and spotted with black; the upperside presents a prettily freckled appearance, being thickly speckled with small black spots of different sizes, around the principal ones of which there is a slight clear space giving the appearance of an ocellated surface. Along the central longitudinal line of the upperside there is, usually visible, an indistinctly paler band, edged with a slightly dentated blackish line and narrowing as it approaches the spinners; this band is crossed towards its fore extremity by a distinct but irregular black linear marking reaching on each side to a longitudinal dentated black line; the dentations of these lines are bold, but bluntish; the underside of the abdomen is also spotted; there are likewise some other blackish markings, and some indistinct pale patches. In some individuals there is an indistinct pale transverse bar crossing the central one just behind the irregular black line mentioned above; these examples were of a generally sandy hue, the darker markings being reddish-brown instead of black, and the legs scarcely marked at all.

An adult female resembled these last in the general colouring; but her legs were entirely without darker markings; the abdomen also is less spotted, and the lines and bands noticed on the male (except the irregular transverse one on the fore part) are scarcely traceable; the sides are marked with oblique converging red-brown lines forming a vandyke pattern; and the underside is unicolorous.

Four males (three adult and one immature), and one adult female, were found on low bushes near Cairo and in Upper Egypt, and appear to me to be new to science.

Fam. ULOBORIDES.

Gen. ULOBORUS (Walck.).

ULOBORUS SIGNATUS, sp. n.

Adult male, length $1\frac{1}{2}$ line.

The *cephalothorax* of this Spider is of a short or round oval form, the site of the fore central pair of eyes being rather prominent; it is uniformly though not very convex above, but, on the contrary, rather depressed and the hinder extremity truncated and higher than the fore extremity; its colour is dark brown, with an indistinct and abbreviated yellowish bar on either side, leaving a broad central brown band and a marginal band on each side of the same colour; these, however, all merge into one at the caput where the yellow bars cease. Clypeus none.

The *eyes* are in two curved rows wide apart from each other; and the curves of both are directed forwards; the eyes of the hinder row are equal in size, and as nearly as possible equidistant from each other; those of the fore central pair are rather larger than those of the hinder row, and separated by about the same interval as those of that row from each other, each fore lateral being also nearly the same distance from the fore central eye on its side; the fore laterals are the smallest of the eight, and each is separated from the hind lateral on its side by a larger interval than that which separates the fore and hind central eyes.

The *legs* are very unequal in length and strength; their relative length is 1, 2, 4, 3, those of the first pair being considerably the longest and strongest; those of the first two pairs are of a dark yellowish-brown colour, the femora being the darkest, and marked obliquely near the middle on the upperside with a yellowish stripe; those of the third and fourth pairs are of a yellowish colour broadly annulated with brown: the tibiae of the first pair had the stumps, apparently, of spines; but all the armature, of whatever nature, had been broken and rubbed off.

The *palpi* are short, of a yellowish colour, marked obscurely with brown; the cubital and radial joints are very short, the latter being somewhat gibbous or pointedly prominent on its upperside at the fore extremity; the digital joint is rather large, and the palpal organs prominent but simple in structure, with, apparently, a fine red-brown spine coiled round them near the middle; this spine may

perhaps be only the corneous margin of the posterior lobe of the palpal bulb.

The *falces* are small and of a yellowish colour; the *maxillæ* straight, short, broad, and rounded at the outer extremity; the *labium* is small and pointed at the apex; these parts are blackish brown, edged and tipped with pale whitish yellow; and the *sternum* is dark-yellow-brown and of an oval form.

The *abdomen* is oblong-oval in form, somewhat gibbous above from the middle forwards; its colour is black or nearly so; the fore half has a narrow white yellowish marginal stripe on the upper-side; and on the hinder half are four small, but distinct, elongate yellowish-white oblique spots forming a square; another spot of a similar colour is placed just above the spinners; the underside has two longitudinal yellowish bands running nearly throughout its whole length. The spinners are compactly grouped, those of the inferior pair being longer and stronger than the superior ones, which are two-jointed; immediately in front of the inferior pair is the transverse surface of the inframaxillary organs; but there are no calamistra on the legs, the latter being seldom (never in my own experience) found in the male sex.

A single example of this very distinct *Uloborus* was found on a low plant on the way up the Nile between Cairo and Siouât.

Fam. THOMISIDES.

Gen. THOMISUS, Walck. *ad partem*.

THOMISUS LATERALIS.

Thomisus lateralis, C. Koch, Die Arachn. iv. p. 43, pl. 120. fig. 277.

Adults of both sexes were found among rushes and other water-plants in a marsh near Alexandria.

THOMISUS SPINIFER.

Thomisus spinifer, Cambr. Spid. Palest. & Syria, P. Z. S. 1872, p. 308, pl. xiv. fig. 14.

Both sexes adult, and immature females, were found not unfrequently on low-growing plants and flowers, as well as on the boughs of the sont acacia between Cairo and Thebes.

Gen. DIÆA, Thor.

DIÆA DIANA.

Thomisus diana, Sav. et Aud. Egypte, p. 161, pl. vii. fig. 9.

An adult male, with females adult and immature, were found on the branches of the sont acacia at various places between Cairo and Thebes.

DIÆA CANDICANS, sp. n.

Adult male, length $1\frac{2}{3}$ line.

The cephalothorax, falces, maxillæ, labium, and sternum are of a

pale dusky whitish yellow colour, the legs and palpi being still paler, and the abdomen creamy white.

The general form is rather less robust than that of *D. diana*, and the legs proportionally rather longer and more slender.

The *eyes* of the foremost row are *very nearly* equidistant from each other; while those of the hind central pair are perceptibly nearer to each other than each is to the hind lateral on its side; the interval between those of each lateral pair is greater than that between the fore and hind central pairs, owing to the rather greater length and stronger curve of the hinder row; the fore lateral eyes are largest of the eight; the height of the clypeus is less than half of that of the facial space.

The *legs* are furnished sparingly with hairs and spines—their relative length being 2, 1, 4, 3, the difference between 2 and 1 and 4 and 3 respectively being very slight.

The *palpi* are similar in colour to the legs and rather short; the radial joint is shorter than the cubital, and has its outer extremity very slightly produced and terminating with a very small, blunt, curved, brown, claw-like process; the digital joint is narrow, and about equal in length to the radial and cubital joints together; the palpal organs are not highly developed nor complex, but apparently consist of a single flattish oval pale yellowish lobe, upon the hinder part of which there rests a strongish, pale, curved spine springing from the outer side of the base of the lobe, and tapering to a sharp point on the inner side.

The *abdomen* is of a regular oval form, and projects pretty well over the base of the cephalothorax; its upper surface is flattish, of a nearly white cretaceous appearance, marked longitudinally from near the fore extremity by a narrow central bar, defined merely by a dull marginal line, and, tapering at each end, fining off to a single line a little way from the spinners; the five normal impressed spots are visible on the upperside, one at the fore extremity of the central bar, and four forming nearly a square figure behind it, the anterior side of the figure being rather shorter than the rest; the underside of the abdomen is unicolorous.

An adult female differed only in the legs of the first and second pairs being shorter than those of the male.

The above examples were found on low plants near Alexandria.

Gen. *Xysticus*, C. Koch.

Xysticus hirtus.

Thomisus hirtus, Sav. et Aud. Egypte, p. 164, pl. vi. fig. 11.

An adult female of this Spider was found near Cairo.

Xysticus promiscuus, sp. n.

Adult male, length $1\frac{2}{3}$ line.

This small *Xysticus* is nearly allied to *X. audax*, Koch; its general form, however, is shorter and broader, the cephalothorax being nearly circular save for the usual broad truncate form of the fore extremity

of the caput; and the abdomen (which projects well over the base of the cephalothorax) is of a very short, broad, oval shape, obtusely pointed behind and slightly truncate before. The sides of the cephalothorax are thickly mottled with pale red-brown and yellow; the usual broad central longitudinal pale band, charged on its fore part with the normal spade-shaped marking, is yellowish red-brown, mottled finely with yellowish and fairly defined, at least at its hinder part, which is prolonged in a dark red-brown line down the hinder slope.

The *legs* are normal in respect of length and strength; they are marbled and streaked more or less coarsely with white, yellowish, and red-brown spots and blotches, and armed with spines, those on the tibiæ and metatarsi of the first and second pairs being rather long and strong; the metatarsi and tarsi are pale yellow, striped longitudinally with white.

The *palpi* are short and strong, of a pale yellow-brown colour, mottled faintly with whitish and darker brown: the radial joint is shorter than the cubital, and has its outer fore extremity produced into a short, tapering, bluntish-pointed apophysis, and a much larger one on its underside; this latter is broad and truncated at its extremity, which is broader than its base; the other (towards the inner side) is pointed: the digital joint is of a short oval form, with the usual apophysis issuing from near its base on the outer side. The palpal organs are very similar to those of *X. audax*, but may be easily distinguished by the form of the T-shaped spine: this in the present species is of a generally slenderer form, and has its shaft strongly bent, whereas in *X. audax* it is nearly or quite straight; the inner one of the cross bars also is longer in proportion to the other than in that species. The large pointed corneous process which issues from the inner side of the base of the palpal organs is also destitute of the thorn-like spine near the base of its lower edge, which is very conspicuous in *X. audax* and also in *X. cristatus*; in some respects this Spider appears to be more nearly like the latter in the palpal organs than the former; but whereas in *X. cristatus* the surrounding spine has its fine point always (so far as I have seen) straight, this in the present Spider is curved.

The *fulcres* are short, strong, subconical, and of a yellowish white colour, marked with red-brown, principally at the base and extremities.

The *sternum* is yellow-white, thickly speckled with pale purplish red-brown spots; and two oblique lines of the same colour are faintly visible on each side, with a similar short central line from the hinder extremity.

The *abdomen* is thinly clothed with erect bristles, and has its upper side of a pale chocolate red-brown colour, marked with a few black spots, chiefly near the margins, which are whitish and rugulose; the usual broad dentated band along the centre is visible and of a whitish colour, but greatly obscured by minute chocolate red-brown spots, the extreme points of the denticulations being the least obscured; about the middle of the denticulated band is a small, narrow, yellow

stripe, pointed at each end, and its edges dark red-brown; the sides are rugulose, pale chocolate-brown, spotted with whitish and dark red-brown; the underside also is chocolate-brown, mottled finely with a deeper hue; the spinners are surrounded by a broken white line.

A female (which I feel no doubt is of this species) was of a generally paler and more ashy hue, but otherwise resembled it in form and markings.

Although so exceedingly closely allied to *X. cristatus* and *X. audax*, I have no doubt that the present is a perfectly distinct species, and that collectors will have but little difficulty in distinguishing it by its general appearance, apart from the special differences of the structure of the male palpi.

The examples above described were found on low plants near Alexandria.

Xysticus ferus, sp. n.

Adult female, length $3\frac{1}{3}$ lines.

This fine but plainly-coloured Spider is allied to *X. bifasciatus*, C. Koch; its general form and structure are of the normal type. The *cephalothorax* is of an orange-yellow-brown colour veined and marked with red-brown, especially on the hinder slope; the ocular region and the middle of the clypeus whitish yellow; the normal spade-shaped marking, behind the eyes, is scarcely defined by an obscure yellow marginal line, its hinder extremity, however, being more apparent and of a whitish-yellow colour; from between the two hind central eyes to the beginning of the hinder slope, two parallel red-brown lines, close together, divide the caput longitudinally; the surface of the cephalothorax is thinly furnished with bristly hairs.

The *eyes* are in the ordinary position, and unequal in size, the fore laterals considerably the largest; those of the hind central pair are slightly larger, and nearer together than those of the fore central pair, the latter being further from each other than each is from the fore lateral on its side; while the eyes of the hind central pair are much nearer to each other than each is to the hind lateral on its side; the height of the clypeus is less than half that of the facial space.

The *legs* are not very long, but strong; they are yellow, marbled underneath, particularly the femora of the first and second pairs, with white, and furnished with hairs, bristles, and spines, the latter disposed in the usual way.

The *falces* are rather short, strong, but conical, similar in colour to the cephalothorax, with the anterior portion washed with yellowish white, and the front surface armed with strong black bristles.

The *palpi* are similar to the legs in colour, and furnished with bristles and spines.

The *maxillæ* and *labium* are of normal form, and, with the *sternum*, similar to the legs in colour; the *sternum*, however, is obscurely marbled with yellowish white.

The *abdomen* is oval, blunt, pointed behind and roundly truncated

before, where it projects fairly over the base of the cephalothorax ; it is of a generally dull sandy yellow-brown colour, and its upper surface furnished with short, strong, curved, black bristles ; the sides and upper margins are very rugulose, the upper edges of the rugulosity more or less marked with whitish. The normal dentated, broad, longitudinal pale band on the upperside is scarcely visible ; and the underside is rather paler than the rest.

A single example of this Spider, which I believe to be of an undescribed species, was found on a low plant near Alexandria.

Xysticus peccans, sp. n.

Immature female, length $1\frac{1}{4}$ line.

Although apparently far from maturity, I am induced to describe as a new species several examples found on plants in Egypt, believing that the specific indications afforded by their colours and markings will eventually be corroborated by the structural characters of the adult spiders.

The form of the *cephalothorax* is ordinary ; and its colour is dull yellowish brown, darker on the sides than along the middle, and the ocular area dull greyish white, the lateral margins being very distinctly and regularly white.

The *eyes* are normal, but the fore laterals are proportionately larger than usual.

The *legs* are moderately long and tolerably strong, their relative lengths being normal ; those of the first and second pairs (except the tarsi, which are pale yellowish) are of a dark brown with a chocolate tinge, most uniform on the tibial, metatarsal, and femoral joints ; those of the third and fourth pairs are a uniform pale yellowish, which is also the colour of the palpi, maxillæ, labium, sternum, and abdomen. The latter is of a roundish oval form, and (in all the examples found) entirely destitute of markings ; probably, however, this will not be found to be so in the adult examples, in which we may expect to find, though perhaps not very definitely, the normal pattern delineated.

The *falces* are short, strong, and subconical, of a yellowish colour, with a broad, distinct, transverse white band near the middle of their fore side.

Xysticus subclavatus, sp. n.

Adult female, length $2\frac{1}{3}$ lines.

This Spider is closely allied to *X. hirtus* (Sav.).

The *cephalothorax* has its sides mottled and marked with yellowish white, and yellow-brown of different shades ; a broad longitudinal pale whitish band occupies the middle ; and along it, from and including the eyes of the hind central pair, runs a yellow-brown bar tapering to a point a little way down the hinder slope.

The *legs* are whitish, mottled and spotted with yellow, and with yellow-brown spots and markings ; the tibiæ and metatarsi of the third and fourth pairs have each a distinct, although broken, dark blackish-brown annulus.

The *abdomen* is roundly truncated before, and broader behind than in front; it is of a whitish hue, marked and mottled above with pale yellow-brown and a few blackish markings; on its hinder half these are arranged in two well separated longitudinal lines, and indicate the spaces between the denticulations of the ordinary broad central longitudinal band, which is otherwise scarcely traceable; the sides are rugulose and marked with some rather indistinct oblique rows of brown spots; and the underside is faintly spotted with yellowish-brown; besides some ordinary bristles on the upper-side, there are on each side of the fore part a few strong curved clavate ones in an obliquely longitudinal line; these bristles increase gradually in strength from the base to the rounded extremity, something like the form of a racket-bat: there may have been others originally; but if so, they had been rubbed off before capture. Several of these bristles, as well as some others, equally strong but not clavate, are also apparent on the cephalothorax.

A single adult female was found near Alexandria.

Gen. SELENOPS, Duf.

SELENOPS ÆGYPTIACA. (Plate LIX. fig. 10.)

Selenops ægyptiacus, Sav. et Aud. Egypte, p. 162, pl. vi. fig. 6.

This Spider appears to be tolerably abundant in the Nile boats; it used frequently to be seen at night in the cabins and passages of our *daha-beah*, but, owing to its swift movements and the numerous cracks and crevices at hand, it was very difficult to capture it; I managed however, to obtain three adult and immature females and several adult males. As no other species was met with during my stay in Egypt, I conclude that this is probably the one described and figured by Savigny and Audouin, though the example from which their figure and description were made, being immature, gives but little idea of the characteristics of the species. A more detailed description from the adult form will therefore be useful.

Adult male, length $4\frac{1}{2}$ to a little over 6 lines; adult female, 6 to $7\frac{1}{2}$ lines. The Spider with legs extended covers a width of two inches and three quarters.

The *cephalothorax* is slightly broader at its widest part than it is long; its form is very nearly that of a heart, the ocular region forming the acute point, which, however, is here truncated; it is flat and level throughout, the caput being only a little constricted laterally; its colour is yellow-brown (the caput being darker than the rest, as also are the normal converging grooves and indentations), and it is clothed with hairs and a yellowish grey pubescence.

The *eyes* are unequal in size and disposed on tuberculate black spots along the whole width of the fore margin of the caput; four form a curved row in the middle, the curve directed forwards; and at some little distance from each end of this row is a lateral pair, the eyes of which are very unequal in size, wide apart, and placed obliquely, so that the hinder eye, which is the largest of the eight, is much further from the curved row than the foremost

one, which is smallest of the eight : the hinder eyes of the lateral pairs follow the same curve as the four middle ones ; but the interval between each and the end one of the central curve is as great as that between the latter and the next to it but one : the interval between the two middle eyes of the central curved row is greater than that between each and the end eye nearest to it ; these end eyes are also rather larger than the middle ones. Owing to the flatness of the caput and the nearness of the eyes to its fore margin, the clypeus is very low, no more than equal to the diameter of one of the middle eyes of the central curve.

The *legs* are long, moderately strong, and not greatly unequal in length ; their relative length is 2, 3, 4, 1 ; they are of a dull yellow tinged with brown, and more or less distinctly annulated with darker yellow-brown ; they are furnished slightly with a greyish yellow pubescence, which sometimes obscures the darker annulations, and also with hairs, bristles, and spines of various lengths. Each tarsus terminates with two curved claws, which appear to be devoid of pectination ; and beneath them is a small but compact scopula of black hairs.

The *palpi* are short, similar to the legs in colour, except the radial and digital joints, which gradually deepen into a dark reddish yellow-brown : the radial joint is nearly of the same length as the cubital, and has, near its outer fore extremity, a prominent dark red-brown somewhat corneous looking apophysis of a tapering, but not very acute, pointed form ; on the inner side, towards the fore extremity of the radial joint are several long spine-like bristles ; the cubital joint has a single bristle on the upperside at the fore extremity ; and the humeral joint has several spine-like ones about the same part ; the digital joint is of good size and of a regular oval form, but does not equal in length that of the radial and cubital together by about one half of the latter ; the palpal organs are well developed, but not very complex, nor presenting any thing very remarkable in their structure.

The *fulces* are moderate in length and strength, rather prominent in front, rounded in profile, and of a deep red-brown colour, paler reddish-yellow near the fore extremity on the inner sides ; they are furnished with longish bristly hairs, and appear to have one or two sharp teeth on their inner margins ; the fangs are powerful, strongly curved, and of a deep red-brown colour.

The *maxillæ* are strong, straight, and obliquely and roundly truncated at their extremities ; their colour is yellow red-brown, softening to pale yellow at their extremities.

The *labium* is equal in length to half that of the maxillæ ; it is of an oblong form, rounded at the apex, where it is of a pale yellowish colour, the rest being reddish yellow-brown ; the upper half is apparently wider than the lower.

The *sternum* is of a dull yellow colour, and nearly circular in its shape, its fore margin is a little flattened, its hinder extremity notched, and its surface is furnished with hairs.

The *abdomen* is very flat, of an oval form, truncated before,

and blunt behind; its colour is a dull testaceous yellow, clothed with hairs of various dull yellowish brown and black hues; those just below the fore margin are upturned, black, and bristly; the upperside is marked with blackish spots, some of which form two longitudinal lines, an oblong marking along the middle of the fore half, following which, on the hinder half, are two or three more or less well-defined transverse lines, the middle portion of the second of these lines being strongly curved; around the margin of the hinder extremity are some small pointed tufts of pale whitish yellow hairs. The spinners are small and short, and, together with the anal tubercle, are partially concealed within a kind of circular sheath, which may be seen when in a rather protruded state in some examples; but in others it is quite invisible; it is probably an exaggeration or more developed form of this peculiarity of which Baron Walckenaer speaks with respect to *Selenops omalosoma*, Duf., and is no doubt a remnant of the once segmented abdomen of the Araneidea. The general form of *Selenops* is strikingly like that of *Phrynus*, the nearest ally to the true Spiders; and it is not surprising therefore that the segmented form of abdomen in the former should be more visible in the present than in most other known Spiders.

This Spider is probably common in houses in Egypt, though I did not myself meet with it except in the Nile boats. According to the sailors' account, it preys upon the cockroaches with which these boats are generally infested.

The female differs from the male only in being larger and with shorter and stronger legs. The exceedingly flattened form of this Spider, which runs with inconceivable quickness, and with its legs extended flat on all sides upon the surface, enables it to glide in an instant through cracks and crevices so narrow as to have escaped observation until the Spider disappears, as if by magic, through the wainscoting of the boat. The only way in which I succeeded in capturing this Spider was by observing it when undisturbed and motionless for an instant, and then placing an inverted tumbler over it, when a piece of paper passed carefully behind, put it completely in my power, and enabled me to chloroform and secure it without the slightest damage to the specimen. I have an adult male of this species from Old Calabar, on the west coast of Africa; this example only differs in having the abdominal markings more distinct than in the Egyptian specimens.

Gen. SPARASSUS, Walck.

SPARASSUS WALCKENAERIUS.

Sparassus walckenaerius, Sav. et Aud. Egypte, p. 159, pl. vi. fig. 1.

Although not rare in Egypt, I was not able to obtain an adult example of either sex of this fine Spider; no doubt their period of maturity occurs later on towards the summer season, the time when my examples were found being in January and February; the length of the largest example met with (an immature female) is 13 lines. Among other situations in which this species was found, it

used to occur on board the *daha-beah*. Waking up on one occasion in the middle of the night, I heard a crunching and crackling noise close to my head; and on looking round, close to my ear was a large Spider, and a still larger Cockroach in deadly struggle together. To stretch out my hand softly and reach a large chip-box close by and enclose them within it was the work of a moment; but on looking in the next morning, the Cockroach had disappeared, all except the harder parts, which were reduced to small fragments. I gave the monster several days to digest his meal and think upon things in general, and then, after a dose of chloroform, consigned him to the collecting-bottle.

Savigny's figure of this Spider is so good that it is impossible to err in the determination of the species.

SPARASSUS COGNATUS, sp. n.

The examples of this Spider met with are not nearly so large as those of *S. walckenaerius*—though, not having met with either species in the adult state, this cannot be considered any certain proof of their relative size when arrived at maturity.

The following differences will serve to distinguish the two species. In the present one the cephalothorax is of a plain yellow colour entirely devoid of the brown markings so characteristic in *S. walckenaerius*; the legs also are completely destitute of the darker annulations which are more or less visible in all the examples I met with of that species; the central eyes also of the hinder row in *S. cognatus* are as widely separated from each other as each is from the hind lateral eye on its side, or perhaps a trifle more widely, while in *S. walckenaerius* the interval between the hind centrals is a trifle less than that between each and the hind lateral on its side. Also the dark markings on the abdomen in *S. cognatus* are of a red-brown colour (often of a bright rusty red), while those on *S. walckenaerius* were of a dull brown hue.

Examples of this Spider were met with both near Cairo and in Upper Egypt. Possibly it may be the immature form of *Sparassus linnei*, Sav.; but at present I am inclined to think otherwise.

SPARASSUS SUAVIS, sp. n.

Adult male, length $3\frac{3}{4}$ lines; adult female, $4\frac{1}{2}$ lines.

The *cephalothorax* of this Spider is broader than long, though constricted and truncated at its fore extremity; the profile line of the upperside describes a slight and uniform curve; it is of a dull orange-yellow colour, clothed with greyish yellow hairs, and marked faintly with dusky brown in the normal grooves and indentations; the height of the clypeus scarcely exceeds the diameter of one of the fore central eyes.

The *eyes* are in two curved rows, the curves directed away from each other, the hinder row being the most curved and the front row the shorter; those of the fore central pair are largest of the eight; those of the hind central pair are further from each other than each is from the hind lateral on its side, while those of the fore-

most row are equally separated from each other, the four central eyes describing a square whose fore side is shorter than the rest : the interval between those of each lateral pair is about equal to the diameter of one of them.

The *legs* are long, and moderate in strength ; their relative length is apparently 2, 1, 4, 3, or 2, 4, 1, 3 ; their colour is yellow, the undersides of the femora of the first and second pairs being speckled with small red-brown spots, chiefly disposed in two longitudinal parallel lines ; they are furnished with hairs and a few long spines (of different lengths) ; and the metatarsi and tarsi are furnished beneath with a scopula.

The *palpi* are moderately long and strong ; they are similar to the legs in colour ; the humeral joints are furnished with a few spine-like bristles towards the fore extremity on the upperside ; and there are a few finer long bristles on the other joints : the radial joint is double the length of the cubital, and has a tolerably long, slightly curved, deep red-brown and rather slender apophysis at its extremity on the outer side ; this apophysis is of a slightly tapering form, but is obtusely pointed : the digital joint is elongate-oval in form, rather longer than the radial and cubital joints together ; its colour is yellow-brown ; and it is hairy, terminating in a single small curved claw : the palpal organs are small and simple, and, although characteristic, present no noteworthy processes, nor do they extend more than halfway towards the extremity of the joint.

The *falces* are moderate in length and strength, straight, though projecting a little forwards, and rounded in profile ; they are of a yellow-brown colour, paler on their inner sides towards the extremity.

The *maxillæ* are moderately long and strong, nearly straight, and roundly truncated at their extremities, their colour is dull yellow-brown, but pale at the extremities.

The *labium* is very short and small, and nearly semicircular in form, of a dull yellow-brown colour, pale at the apex ; and the *sternum* is yellow.

The *abdomen* is of an oblong-oval form ; its colour is a dull testaceous, more or less mottled on the upperside with clearer yellow cretaceous spots, and it is thinly clothed with greyish yellow hairs ; an ordinary elongated, central, longitudinal yellow-brown marking, defined by a margin of bright red-brown spots, occupies the fore half of the upperside, and its acute termination is continued by a single line of similar spots to the spinners ; a few other small spots of the same colour are thinly but pretty evenly dispersed over the rest of the upper surface ; the underside is immaculate.

The *female* resembles the male, except in being of a stouter build ; the genital aperture is small, of a somewhat heart-shaped and characteristic form, with a blackish red-brown corneous margin.

An adult and an immature male and an adult female were found at the roots of scattered tufts of herbage on the desert near Gebel y Silsilis, in Upper Egypt. Although nearly allied to *Sparassus linnei* (Sav.), it may be at once distinguished not only by a difference in the rela-

tive sizes and position of the eyes and its *much smaller size*, but by the speckled appearance of the abdomen, and the spots on the femora of the first two pairs of legs; the markings on the abdomen of *S. linnæi* being much larger and of a linear character; the palpal organs also, in that species, extend much nearer to the fore extremity of the digital joint, besides being quite different in structure; the radial joint also is shorter in proportion to the cubital, and is armed with two or three long and rather strong spines.

Gen. ARTAMUS, L. Koch (changed to *Artanes* by T. Thorell).

ARTANES BIGIBBA, sp. n.

Immature female, length $2\frac{1}{2}$ lines.

The *cephalothorax* is of the ordinary form; it is of a yellowish grey colour, more or less completely mottled and suffused with yellowish brown, generally leaving a not very distinct pale patch on each side of the hinder part of the caput.

The *eyes* are small and in the usual position; those of the hind central pair are further from each other than each is from the hind lateral on its side; and the relative position of the eyes of the front row is similar; both rows are curved, the convexity of the curve directed forwards; but the front row is much the shortest, and most strongly curved.

The *legs* are long and moderately strong; their relative length being 2, 4, 1, 3; they are of a pale yellowish hue, more or less mottled and suffused with white; and the femora of the first pair are marked rather underneath in front with a strongish longitudinal stripe of deep chocolate-brown (in some examples almost black); in some examples the legs have an obscurely annulate appearance; the tibiæ and metatarsi of the legs are furnished with longish spines.

The *palpi* are similar in colour to the legs; and the humeral joints of those of the first pair have a large black spot underneath the fore extremity.

The *falces* are short, straight, vertical, subconical, of a whitish-yellow colour, tipped with yellow-brown.

The maxillæ and labium are of the normal form, and, with the sternum, of the same colour as the falces.

The *abdomen* is of a somewhat subpentagonal form, truncate before, and broadest towards the hinder extremity, which, however, is of a somewhat pointed form; at its broadest part on either side at the margin is an obtuse gibbosity or protuberance, which, together with the sides and the hinder part, has a wrinkled appearance after preservation in spirit of wine; the colour of the abdomen is greyish white mixed with yellowish grey-brown, and in some examples with chocolate red-brown, assuming an indistinct pattern of a longitudinal central line on the fore half, which emits a short lateral oblique line from either side near its middle, followed by two or three subangular transverse lines, or chevrons.

Four examples, all females and immature, were found among herbage near Alexandria.

ARTANES LUGENS, sp. n.

An immature female of this Spider is rather smaller than those just described of *A. bigibba*, and, although strikingly similar in general form, colouring, and structure, differs from that species in (apparently) the larger size of the eyes of the hinder row; the legs, also, are speckled with dark brown or blackish spots, the longitudinal dark stripe on the fore femora being absent; the *abdomen* also has scarcely any trace of the two gibbosities noticed in that species; the colour of the upperside is a clear greyish white, with a large oblong somewhat rectangular black area reaching from the fore margin to about two thirds of the way to the spinners; this black figure is rather constricted in the middle, and is closely followed towards the spinners by a transverse, slightly angular stripe, or chevron, close behind which is a single central black spot; on either side, close to the spinners, is a short black marginal stripe; the underside is unicolorous, and of a dull greyish white hue.

A single example of this Spider was found near Alexandria. Future researches alone will prove whether or not it is only an abnormally coloured example of *A. bigibba*; at present I consider it to be of a distinct though nearly allied species.

Gen. THANATUS, C. Koch.

THANATUS ALBINI.

Philodromus albini, Sav. et Aud., Egypte, pl. vi. fig. 4.

Adult examples of both sexes of this Spider were found in various parts of Egypt, among low herbage and running on bare spots.

THANATUS LINEATIPES, sp. n.

Adult female, length 3 lines.

This Spider belongs to the group typified by *T. oblongus*, upon which M. Simon has founded a separate genus, *Tibellus*. So far as I can see, the chief, if not the only, valid distinction from *Thanatus* is the elongate narrow abdomen—which seems scarcely enough for the construction of a new genus, although a convenient character for the separation of a group within the genus *Thanatus*.

The whole of the fore part of the present Spider is pale yellow. The *legs* are furnished with a few fine spines; and the femora of the first and second pairs are thinly spotted with minute blackish specks; the tibiæ and metatarsi of the first, second, and third pairs are marked on the hinder sides with a single longitudinal black line, while the same joints of the fourth pair have a black line along both the fore and hinder sides. The *palpi* are immaculate.

The *abdomen* is of an elongate oval form, but not so narrow as that of *T. oblongus*; it is of a pale yellowish colour, closely and uniformly covered with yellow-white cretaceous spots, having only a pale dull-coloured elongate tapering central marking along the middle of the fore half on the upperside; from this marking there issue several fine oblique lines of a similar colour. The relative length of

the legs is 4, 2, 1, 3; and the position of the eyes is exactly like that of *T. oblongus*.

A single example was found on a low plant near Cairo.

THANATUS FLAVUS, sp. n.

Adult female, length $2\frac{1}{2}$ lines.

In size, colours, and general appearance this Spider is strikingly like *T. lineatipes*; the form, however, of the abdomen is a little different, tapering more uniformly from the fore part to the spinners; the cephalothorax has two broad but indistinct lateral longitudinal brownish bands, one on each side, leaving a marginal band of the normal ground-colour on either side, of the same width; the legs are more or less thinly speckled with blackish specks, and none of them have the black lines so characteristic in *T. lineatipes*.

The form of the genital aperture also differs from that species; nothing, however, but a drawing of each would render the differences of this aperture tangible for the purpose of specific determination.

Four adult females were found on low plants in a marsh near Alexandria.

THANATUS FLAVESCENS, sp. n.

Immature female, length 3 lines.

Strikingly like both the foregoing species in colours, this one may be at once distinguished by the more attenuated cylindrical form of the abdomen, and consequently its greater length; the abdomen tapers a little, and very gradually, to the hinder extremity, it is of a clear straw-yellow colour, and has the faintest indication of a longitudinal central stripe throughout the upperside, formed by two gradually converging dusky broken lines; the cephalothorax is yellow, slightly speckled with black, chiefly on the caput; the legs are the same in relative length, and have only a very faint indication of black speckling; the two posterior eyes (the laterals of the hinder row) are in the present species further removed backwards from the rest than in the two former, the central pair of the same row being also smaller.

An immature male and female were found on a low bush near Cairo.

Gen. *PHILODROMUS*, Walck.

PHILODROMUS ADJACENS, sp. n. (Plate LIX. fig. 11.)

Philodromus fabricii, Cambr. Spid. Palest. & Syr., P. Z. S. 1872, p. 310 (exclude reference to Savigny).

Adult male, length $1\frac{1}{3}$ line; adult female, $2\frac{3}{4}$ lines.

Subsequent examination and comparison have led me to believe that the Spider recorded (*loc. cit. supra*) is distinct from *Philodromus fabricii*, Sav. et Aud., differing from it in the more truncate termination of the very conspicuous dark marking on the fore half of the upperside of the abdomen, as well as in the relative length of the legs; in the present Spider this is 4, 3, 2, 1, while in *P. fabricii* it is 4, 2, 3, 1. The structure, however, of the palpal organs of the male is not very unlike the figure shown in Savigny's work.

The *cephalothorax* is of ordinary form, of a yellowish grey colour, with two very distinct broad lateral longitudinal (but not marginal) dark-brown bands; these bands, however, touch the margin at the point where they terminate in front, close to the junction of the caput and thorax, behind which their lower margin is rather strongly denticulate.

The *legs* are very long and slender; their relative length is 4, 3, 2, 1; and their colour is pale whitish-yellow, more or less spotted and marked beneath the femora with greyish yellow-brown; and they are furnished with hairs and a few inconspicuous spines.

The *palpi* are similar to the legs in colour; the radial and cubital joints are short, but of equal length; and at the outer extremity of the former is a slightly curved, tapering, narrow, pointed brown apophysis; the digital joint is oval, rather longer than the radial and cubital joints together; the palpal organs are simple in structure, with a slightly curved pointed corneous process, which begins on their inner side, and projects, with a sharp black point, from their extremity.

The *abdomen* is oval, and projects well over the base of the cephalothorax; its fore extremity is rounded, and its posterior extremity blunt-pointed; it is of a dull cream-grey colour, with the normal marking on the fore half of the upperside very distinct and well defined and of a deep brown colour, with an angular point near the middle on each side, and truncated or blunt-pointed at its hinder extremity, from each corner of which there projects sometimes a very short oblique dark brown line or point; the sides of the abdomen are obscurely marked and mottled with brown; but the rest of the surface scarcely shows any trace of colour in markings.

The *female* resembles the male in colours and markings, but is much larger; and the legs are shorter, and their relative proportion appears to differ, being in this sex 4, 2, 3, 1; the difference, however, if any, between those of the second and third pairs is exceedingly slight.

Adults of both sexes were found in desert places near Alexandria, where they were very difficult to be seen except when moving, owing to the exact adaptation of their colours to the surface of the ground; and when moving they were exceedingly difficult to capture, owing to the swiftness of their movements.

I feel no doubt that these are identical with the species recorded from Palestine, although in all the male specimens and some of the females obtained there, besides the markings above noticed, the remainder of the upper surface of the abdomen is marked more or less distinctly with yellowish brown, forming on the hinder half a somewhat regular, tapering pattern, denticulated on its outer margins, sometimes divided by an indistinct pale longitudinal stripe, and sometimes with several transverse curved or slightly angular dark lines, more or less visible; the *cephalothorax* also often has the space between the dark lateral bands occupied by a longitudinal tapering dark stripe; and the legs are of a generally darker and more suffused hue. In fact, it would be correct to describe the Egyptian

examples as bleached or washed-out specimens of the Palestine species. I can, however, see no difference between them in any structural points.

PHILODROMUS MEDIUS.

Philodromus medius, Cambr. Spid. of Palest. & Syria, P. Z. S. 1872, p. 311.

An adult male, with females, both adult and immature, were found in Upper Egypt, upon the lower boughs of the *sont acacia*.

PHILODROMUS CINEREUS, sp. n.

Adult female, length 2 lines.

The *cephalothorax* is pale yellow, the sides (except a narrow marginal white line) yellowish brown, divided longitudinally by a broken curved line of three indistinct whitish elongate spots, and marked along the course of the normal indentations with converging black lines, among which are a few other small spots of the same colour; the upper part of the caput is dull yellowish brown, margined strongly behind with white, on the posterior edge of which are two or three deep-black-brown spots; the clypeus is white, and its height is equal to half that of the facial space; the ocular area is also white.

The *eyes* are in the usual position, but are rather more unequal in size than usual, those of the fore central pair being decidedly the largest and considerably further from each other than each is from the fore lateral eye on its side, the interval between each and the latter being rather less than the latter's diameter; the four central eyes form a square whose hinder side is longer than the rest.

The *legs* are rather long and slender, their relative length is 2, 4, 3, 1; they are pale yellow in colour, annulated and speckled more or less with blackish brown, and furnished sparingly with hairs and a few very fine inconspicuous spines.

The *palpi* are moderately long, slender, and similar to the legs in colour.

The *falces* are of moderate length, but slender, and of a brownish-yellow colour.

The *maxillæ* and *labium* are normal in form, and similar to the falces in colour, but tipped with a paler hue.

The *sternum* is yellow, marbled with white.

The *abdomen* is rather large, broader behind than before; it is of an ashy grey colour, thickly suffused with darker grey and black specks on the upperside; the normal marking along the centre of the fore half is of a blackish grey colour, well defined by a black marginal line, truncate at its hinder extremity, and emitting an indistinct black oblique line from either side of its broadest part, which is slightly angular; the hinder part is marked by some obscure whitish markings and spots disposed in opposed oblique broken lines on either side; the genital aperture is characteristic, and of a somewhat oval or kidney-shape, divided by a narrow longitudinal septum; a little way underneath, in front of the spinners, is a small but very

distinct transverse slit or opening, probably the orifice of a portion of the tracheal system.

A single example only was found near Cairo. Probably other examples would show some variation in the distinctness of the markings; but even from this one example it appears to me to be a very distinct species.

PHILODROMUS VENUSTUS, sp. n. (Plate LIX. fig. 12.)

Adult male, length not quite $1\frac{1}{2}$ lines; adult female, rather more than 2 lines.

The *cephalothorax* of this pretty and very distinct species has a broad central longitudinal yellow band, as wide as the length of the hinder row of eyes, including most of the ocular area, and with a paler angular bar at the hinder part of the caput, the angle directed backwards; the sides and clypeus, excepting a narrow marginal cream-white line, are of a rich dark brown colour, somewhat curvidentate on the lower edge; and on either side of the caput, just below each end of the ocular area, is a yellowish spot; the height of the clypeus equals half that of the facial space.

The *eyes* are in the ordinary position; those of the fore central pair are rather larger than the rest, and are much further from each other than each is from the fore lateral eye on its side; the four central eyes describe a square whose fore side is the shortest.

The *legs* are long and rather slender, their relative length being 2, 1, 4, 3, or 2, 4, 1, 3; they are yellow, broadly banded and otherwise slightly marked with a brightish brown, but most distinctly and darkly on those of the third and fourth pairs; they are also furnished with hairs and a few fine inconspicuous spines.

The *palpi* are rather short, and similar in colours and markings to the legs; the radial and cubital joints are short, but of about equal length, the former being furnished with several spines and a small pointed corneous apophysis at its extremity on the outer side; the digital joint is rather long and of a narrow oval form and yellow-brown colour; the palpal organs are very simple, consisting apparently of an oval lobe without any noticeable processes.

The *falces* are moderate in length and strength, straight and subconical, of a yellow colour, with two reddish black-brown patches in front of each, one near the base, the other towards the extremity; in fact the base is more or less reddish black-brown all round.

The *maxillæ* and *labium* are of the usual form and, with the *sternum*, of a pale yellow colour; the latter has an elongate triangular black spot at its hinder extremity.

The *abdomen* is of an oval form, pointed behind and somewhat flattish above; it is of a bright buff colour, the upperside margined on each side, but not quite to the hinder extremity, with a deep-black-brown well-defined stripe, edged on the inner side with cream-white; from the fore extremity a short black-brown central stripe runs a little way along the ordinary marking, which is of a much paler colour and ill defined; and from a little way above the spinners a narrow cream-white stripe runs nearly to the extremity of the or-

dinary marking; the ground-colour of the abdomen deepens in its hue on each side of this white stripe, becoming of the same colour as the lateral stripes at its hinder extremity; the underside is pale buffish yellow, marked with two longitudinal brownish lines, which converge a little towards each other as they get near the spinners.

An adult female differed only in being of a darker and more suffused hue, the different lines and markings being not quite so vivid.

An adult example of each sex, with an immature female, were found on the branches of the sent acacia, during the ascent of the Nile, between Cairo and Manfaloot.

Fam. LYCOSIDES.

NILUS, gen. nov.

Cephalothorax short, broad, and with very slight lateral constrictions at the caput.

Eyes not very large nor very unequal in size, occupying the whole width of the upperside of the caput, in two not very widely separated, and almost equally curved, transverse rows; the convexity of the curves is directed forwards, but the front row is the shortest.

Legs tolerably strong, not very long nor very unequal in length; their relative length 4, 1, 2, 3, or 1, 4, 2, 3; each tarsus ends with three curved claws.

Maxillæ moderately long, straight, broader at their extremity than at their base, and rather roundly truncated.

Labium short, scarcely half the length of the maxillæ; lateral margins slightly curved, and apex rounded.

Abdomen short, oval, rather pointed behind, and projecting considerably over the base of the cephalothorax.

NILUS CURTUS, sp. n. (Plate LX. fig. 13.)

Immature female, length rather more than 2 lines.

The *cephalothorax* has a rather abrupt hinder slope, and the profile-line of the caput and thorax to the hinder slope is level; its colour is yellow-brown, the ocular area, including a large somewhat quadrate area behind it, being yellow, the quadrate area having two indistinct brownish patches near its hinder part; the clypeus is yellow, with two brown patches opposite the middle of the base of the falces, and its height scarcely equals half that of the facial space; on each side of the cephalothorax is a well-defined, straight, yellow, but not very broad stripe, reaching from the hinder extremity quite to the insertion of the falces, and below it is a broad yellow-brown marginal band.

The *eyes* are seated, in the form of a crescent, on largish black tuberculate spots; the lateral eyes of the hinder row are the largest, and the fore laterals the smallest of the eight; the interval between those of the hind central pair is rather less than that between each and the hind lateral on its side; while the interval between those of the fore central pair is rather greater than that between each and the fore

lateral on its side ; the length of the front row is equal to that formed by any three eyes of the hinder row ; and the four central eyes form a square whose fore side is shortest and its hinder side slightly the longest.

The *legs* are yellow, indistinctly annulated and marked with dusky brown, and furnished with long spines as well as with hairs and bristles.

The *palpi* are pale yellow, moderately long, and furnished with hairs, bristles, and a few spines.

The *falces* are vertical and strong ; their colour is pale yellow, with a broad brownish band along the middle of their fore side, not reaching, however, to their extremities.

The *maxillæ* and *labium* are pale yellow.

The *sternum*, which is nearly round and pointed a little behind, is also of a pale yellow colour, but broadly margined on each side with dark blackish brown.

The *abdomen* has on the upperside a broad longitudinal dark brown band, as wide as the whole width of the abdomen at its fore extremity, but narrowing gradually to the spinners, near which its margins are a little denticulated ; this band has the normal longitudinal macula along the middle of its fore part indistinctly defined, of a brownish-yellow colour, and pointed at its hinder extremity ; and along either side of this are two or three more or less distinct dull whitish spots ; the central tapering band is well defined on each side by a broad yellowish white marginal band ; the sides are marked more or less with black-brown streaks and spots ; and the underside is dull black-brown, divided by a longitudinal central yellowish bar (which tapers to a point behind), and margined by a bar on each side of a similar colour ; the spinners are short and strong, those of the inferior pair being rather stronger, but equal in length to the superiors.

Four immature examples of this Spider were found on rushes in a marsh near Alexandria, and are of very great interest as forming a transition from *Dolomedes* to *Ctenus* and yet wanting such decided characters as would include them in either of those genera. The position of the eyes is very like that of *Sparassus* ; and this, with the strongly laterigrade legs, shows an affinity to the Thomisides ; but from the Spiders of this family they are separated by the presence of three instead of two tarsal claws. The general appearance, from the colours and markings, is exceedingly like that of *Dolomedes fimbriatus* (C. Koch) ; but the position of the eyes distinguishes it at a glance from that well-known species. The approximation to *Ctenus* is seen in the approach of the fore lateral eyes to the hind lateral ones ; by which the front row is strongly curved instead of being straight or nearly straight as in *Dolomedes* ; from this last genus the near approach together of the two rows also very plainly distinguishes it. From all these, and other considerations as well, it has appeared to me necessary to constitute a new genus for its reception.

Gen. *PIRATA*, Sgdd.*PIRATA LEOPARDUS*.*Pirata leopardus*, Sund.*Lycosa cambrica*, Bl. Brit. & Irish Spid. p. 32, pl. ii. fig. 14.

Adults of both sexes were found in a marsh near Alexandria; and I can find no structural difference in the male palpi from those parts of *L. cambricu*, Bl. The colours, however, of the abdomen are more distinct and more strongly contrasted, while their disposition is the same.

PIRATA PROXIMA, sp. n.

Adult female, length 4 lines.

The *cephalothorax*, looked at in profile, has the thoracic region considerably humped, and the hinder slope very steep and abrupt; it is clothed with hairs, and the upper part, especially of the caput, is furnished with numerous erect blackish bristles; the colour is yellow-brown, margined with a black line, immediately above which is a narrow band clothed densely with short white hairs, a little way above which, again, is a broader but not very regular or continuous yellowish band: from the posterior eyes a broad yellowish tapering band runs to the hinder extremity, having within it a largish yellow-brown marking, fining off into the red-brown line which denotes the thoracic junction; this yellow-brown marking is again divided longitudinally by a yellowish line, which also runs through the middle of the ocular area.

The *eyes* occupy an area rather broader than long, the length being measured from the lateral eyes of the front to those of the hinder row, ignoring the upper angle of the caput, just below which the eyes of the middle row are placed; the length of the front row is equal to that of the middle one, and its two central eyes are a little further from each other than each is from the lateral eye next to it, and are smaller than the eyes of the hinder row, the fore laterals being the smallest of the eight.

The *legs* are strong, but not very long; their relative length appears to be 4, 1, 3, 2, though the difference between those of the first and third pairs is very small, if any; they are of a dull brownish-yellow colour (the femora only having the faintest traces of darker annulations on their uppersides), and are furnished with hairs, bristles, and spines; the latter are the strongest and most numerous on the tibiae and metatarsi of the third and fourth pairs.

The *falces* are strong, and of a dark reddish yellow-brown colour.

The *maxillae* are yellow-brown, tinged with reddish; the *labium* dark blackish brown, with a pale apex; and the *sternum* yellow, marked with a few not very distinct dusky brown blotches. All these parts are of normal form and furnished with bristly hairs.

The *abdomen* fits well up to the hinder slope of the cephalothorax; it is of a dull yellow olive-brown colour, paler on the under than on the upperside; the normal macula along the middle of the fore part of the upperside is indistinctly visible and of a dusky brownish hue,

angular on each side near the middle and blunt-pointed at its hinder extremity ; on either side of this macula, but free from its margins, are two dark spots in a longitudinal line, furnished with bluish-white hairs, the four spots forming nearly a square ; four or five other similar spots on each side form two longitudinal lines on the hinder half of the abdomen, the lines converging towards the spinners ; these spots are connected into pairs by very faint dusky angular transverse lines, or chevrons, the apex of that which joins the first two spots touching the hinder extremity of the normal macula on the fore part ; the sides are mottled with small irregular patches and spots of short bluish-white hairs. A series of examples would probably show some variety in the distinctness of the pattern on the abdomen.

A single example only was found in a swamp near Alexandria. It is very nearly allied to *Pirata piratica*, C. Koch, as well as to *P. piscatoria*, C. Koch, and *P. hygrophila*, Thor. From the first of these the larger size of the spider, as well as the dark colour of the normal macula on the abdomen, will distinguish it at a glance ; from the second, which is of about the same size, the much narrower white marginal border of the cephalothorax, as well as the lateral yellow bands, will, among other differences, serve to distinguish it easily ; while from the third species it is at once separated by its greater size and immaculate (or almost immaculate) legs. It is probably an abundant Spider in the marsh referred to and in others near it ; but I was unfortunately unable to pay this locality another visit after the discovery of the single example now described.

Gen. TROCHOSA, Koch.

TROCHOSA PARTITA, sp. n.

Adult female, length 5 lines.

The *cephalothorax* of this handsome Spider is rather drawn out, though not suddenly constricted laterally at the caput ; it is of a yellow-brown colour, margined with a black line and a tolerably regular though not unbroken yellow band ; the middle of the upper-side has a somewhat star-shaped marking, formed by short yellow stripes converging to the thoracic junction ; there are also other yellow patches of different sizes on the caput behind the ocular area, which is strongly suffused with black-brown, leaving, however, a clearish yellow space between the eyes of the hinder row.

The *eyes* are in the usual position, the ocular area being about equal in its length and breadth ; the fore centrals are nearly, if not quite, as large as the eyes of the hinder row ; the front row is longer than the middle one, and its eyes are separated by as nearly as possible equal intervals.

The *legs* are moderate in length and strength, their relative length being, as nearly as I could ascertain, 4, 1, 2, 3 ; their colour is yellow, faintly annulated and marked with dusky brown, and furnished with hairs and spines.

The *palpes* are of a yellowish colour, clouded with yellow-brown towards their extremities ; the *maxilla* are yellow, and the *labium*

dark yellow-brown, pale at the apex. The *sternum* is yellow, divided longitudinally by a well-defined and very distinct nearly black stripe.

The *abdomen* is of an elongate oval form, and clothed with dull yellowish hairs; the normal maculæ on the fore part, as well as the ordinary angular bars, or chevrons, on the hinder part (which last are spotted with small black points), are well defined, and vary in colour from yellow to reddish yellow-brown; besides which there are various lines and spots of yellowish and white, the ground-colour being nearly black, and the whole forming an exceedingly pretty and variegated pattern; the sides are yellowish, marked with short blackish spots and streaks; and the underside is also yellow, marked with three broken blackish lines.

An immature male and two adult females were found near Alexandria. It may be distinguished from all other European and Egyptian Spiders known to me by the yellow sternum bisected by a longitudinal black stripe.

TROCHOSA DEPUNCTA, sp. n.

Adult male, length $3\frac{1}{2}$ lines.

This spider is very closely allied to *T. picta*, Hahn, but may be distinguished by its less distinct pattern and paler colours; the structure also of the palpal organs is different. The whole of the underside also, except the sternum, is of a pale yellow colour without any markings, the sternum being blackish brown, with a yellow longitudinal line dividing the fore half; while the underside of *T. picta* is invariably (in my experience) of a sooty black hue, and the annulation of the legs very strong and distinct. Possibly this Spider may be the *Lycosa nilotica* of Savigny; but as there appears to be considerable doubt upon the point, I have thought it best to give it here as a distinct species.

An adult male and two females were found near Alexandria.

TROCHOSA PILIPES.

Lycosa pilipes, Luc. Expl. en Algérie, p. 109, pl. ii. fig. 8.

Numerous examples of both sexes of this Spider were found under stones on the damp sandy flats bordering the Nile in Upper Egypt; and I believe them to be identical with the Spider described and figured by H. Lucas (*loc. cit.*). It is very closely allied to examples of *Trochosa lynx*, Koch, received from Dr. L. Koch, but is, I think, decidedly of a different species. The numerous long erect bristles and hairs on the legs (and, in fact, on the whole Spider) are very characteristic.

TROCHOSA VIRULENTA, sp. n.

Adult male, length 6 lines; adult female, 7 lines.

This Spider is nearly allied both to *T. pilipes*, Luc., and *T. lynx*, Koch, but may be distinguished by its larger size and bolder though very similar pattern on the abdomen. The palpi also of the male differ very perceptibly in their greater strength, their shorter cubital

and radial joints, and the larger size (especially the greater width) of the digital joint; and the palpal organs are different in their structure. The legs also are far less distinctly annulated, and are quite destitute of the long erect hairs so conspicuous in *T. pilipes*.

Two adult males and an adult female were found in the neighbourhood of Cairo.

TROCHOSA URBANA, sp. n. (Pl. LX. fig. 14.)

Lycosa agretyca, Savigny, Egypte, p. 147, pl. iv. fig. 6.

This Spider, although nearly allied to *Trochosa* (*Lycosa*) *agretyca* (Walck. & Blackw.), is quite distinct from that species, and is in fact still more nearly allied to *L. campestris* (W. & B.). From the former the distinctly marked bright yellow colour of the normal macula on the fore half of the abdomen, as well as its pointed hinder extremity, will distinguish it at a glance; while from the latter, with which it agrees in size, and which it resembles greatly in appearance, it may easily be separated by the character of the central longitudinal yellow band on the cephalothorax. This in *T. campestris* is broad, tapering towards its hinder extremity, strongly constricted at the hinder part of the caput, and its fore part marked with two longitudinal parallel brown lines; whereas in *T. urbana* the central band is narrow and of uniform width from the hinder slope to the middle of the ocular area, having a pale yellowish longitudinal line on each side of its fore part near the eyes. Also, in all the examples found, the digital joint of the male is pale-coloured instead of being of a deep reddish brown as in *L. campestris*. The palpal organs of the male also differ in structure.

Adult and immature examples of both sexes were not infrequent among low plants and other herbage in a marsh near Alexandria.

TROCHOSA EFFERA.

Lycosa effera, Cambr. Spid. Palest. & Syr., P. Z. S. 1872, p. 318.

An adult male and female were found in the neighbourhood of Cairo, differing from the Palestine specimens only in size, the Egyptian examples being the largest. The adult male measures $5\frac{1}{2}$ lines in length, and the female 7 lines. An immature female was also found near Alexandria.

Gen. TARENTULA, Sund.

TARENTULA TARENTULINA.

Lycosa tarentulina, Savigny, Egypte, p. 143, pl. iv. fig. 2.

Immature examples (of the female only) were found in abundance near Alexandria, in their cylindrical holes on waste and desert places; the hoary-grey ground colour, and the black underside of the abdomen distinguish this Spider from all others of the family found by myself in Egypt.

TARENTULA TRUCULENTA, sp. n.

Female immature, length rather over 5 lines.

This Spider is very nearly allied in colours and general appearance

to *Trochosa effera*, Cambr.; it may, however, be distinguished by the first row of eyes being distinctly shorter than the second, and by the marking of the falces, which in the present species are yellow, or orange-yellow-brown, with a longitudinal, well-defined, dark reddish-brown band, which runs in front from their base to their extremity, and appears to continue the broad dark brown bands running throughout the length of the cephalothorax and including on each side the lateral eyes of all the three rows. The rest of the cephalothorax is yellow; the central yellow band is abruptly constricted at the hinder part of the caput, whence it narrows gradually to the hinder extremity of the thorax. On the caput this band has two longitudinal parallel brown lines, which are often imperfect, and sometimes obsolete.

The *eyes* of the front row are very small (the centrals not very much larger than the laterals), and separated by as nearly as possible equal intervals; the laterals of this row are seated on strong tubercles, and have a rather downward direction; the height of the clypeus equals a diameter of the central eyes; the ocular area is not much longer than broad; and the length of the hinder row does not very much exceed that of the middle row.

The *legs* are yellow, immaculate, excepting in some few examples where the femora show a very faint trace of dusky annulations.

The *maxillæ* and *labium* are yellow, the latter clouded with brown towards and at its base; the *sternum* also is yellow, with two or three indistinct dusky longitudinal markings.

The *abdomen* is of a rather elongate oval form, its colour varies from yellow to pale yellow-brown; and the ordinary Lycosid markings are more or less distinctly traced by blackish brown broken lines and spots, the spots extending in broken oblique lines over the sides; the abdominal pattern in this, as in almost all other species of the family, is often greatly obscured by the hairs with which it is covered; immersion in fluid, however, brings out the pattern distinctly.

Eight or nine examples were found near Alexandria.

TARENTULA TREMENS, sp. n.

Adult female, length scarcely 4 lines.

Cephalothorax dull orange-yellow, clothed with yellowish grey adpressed hairs; a broad brown longitudinal band occupies each side, leaving a narrower yellow marginal one and a much broader central one; the latter is sharply denticated on its inner margins at the hinder part of the caput, the foremost denticulation representing the ordinary constriction, where the lateral dark bands break in upon the central pale one; this in the present Spider is almost of uniform width from the eyes to the beginning of the hinder slope, which is not excessively steep, forming an angle of about 45° .

The *eyes* of the front row form a line perceptibly shorter than those of the second row; the centrals of the second row are a little larger than the laterals, and the interval between them is rather greater than that between each and the lateral eye nearest to it; those of the second (or middle) row are very large, and separated from each other by scarcely a diameter's interval; and yet the line formed

by them is but a trifle less than that formed by the hinder row. The ocular area is longer than broad.

The *legs* are rather short and strong; their relative length apparently 4, 3, 1, 2; they are of a bright yellow colour, tinged with reddish brown towards the extremities of the first two pairs, and almost immaculate, the traces of annulation being scarcely perceptible; they are furnished sparingly with hairs and bristles, and a few rather short spines.

The *palpes* are strong and of a rich deep red-brown colour, clothed sparingly with yellowish hairs and dark bristles.

The *maxillæ* are darkish yellow-brown, tinged with red, the extremities being pale yellow.

The *labium* is wholly dark red-brown, and the *sternum* yellow.

The *abdomen* is of a dull orange-yellow (paler underneath), and pretty thickly clothed with coarsish yellow-grey adpressed hairs, among which are a few prominent blackish bristles. The ordinary Lycosid markings are scarcely traceable, being only just indicated by a few minute black-brown spots. The sexual orifice is large but of simple form, consisting of two rather oblique oval apertures near together, but in opposition, at the hinder part of a large, nearly circular, red-yellow, somewhat corneous-looking convexity.

A single example of this very distinct Spider was found near Alexandria.

Gen. LYCOSA, Latr.

LYCOSA UNGULATA, sp. n.

Immature female, length 5 lines.

This Spider is certainly very closely allied to *Lycosa arenaria*, Sav. (resembling it in the remarkably long and slightly curved superior tarsal claws, by which it may be easily distinguished from all others known to me); the description, however, given of the colours and markings lead me to conclude that it is of a different species.

The *cephalothorax*, when seen in profile, is rather depressed behind the occiput; and the height of the clypeus considerably exceeds the diameter of the fore central eyes; this part and the ocular area are dark brown; but being, with the rest of the cephalothorax, covered with yellow-grey pubescence, its colour is not so apparent; there are also on these parts numerous long bristly hairs; the rest of the cephalothorax is of a bright straw-yellow colour, with two broad longitudinal yellow-brown bands, each of which includes at its fore extremity the lateral eyes, on its side, of the hinder and middle rows. The central yellow band is very broad, but strongly constricted (or indented) at the occiput, forming a pretty regular, large, transverse oval behind the posterior eyes; and behind this constriction the margins of the band are somewhat denticulate, and emit some pale divergent lines across the two yellow-brown bands, following the directions of the thoracic indentations; the thoracic junction is indicated by a longish red-brown indented line.

The *eyes* are in the usual position; those of the posterior and middle rows form nearly a square, the fore side shortest and the hinder

side longest. These four eyes are very large, the posterior ones being rather less than the anteriors; the two centrals of the front row are larger than the laterals, and further from each other than from the lateral nearest to it, the row itself being shorter than the middle row.

The *legs* are long and moderately strong; their relative length apparently 4, 3, 1, 2, those of the fourth pair greatly exceeding the rest; they are of a straw-yellow colour; the femora are marked on their outer sides with a broken longitudinal stripe, and faintly annulated with pale yellow-brown; they are furnished with hairs and numerous pale, but not very long nor strong spines; and each tarsus terminates with three pale claws, of which the superior pair are very long and slightly curved, their hinder part finely pectinated; the inferior claw is exceedingly short, and bent almost perpendicularly downwards; the extremities of the tarsi* (which are subdivided, giving the legs eight joints instead of seven) are also furnished all round with longish slender spines.

The *palpi* are of moderate length; their colour is yellow, and the terminal claw long, slightly curved, and minutely pectinated.

The *falces* are moderately long and strong; they are of a yellow-brown colour, with a dark brown longitudinal band in front, nearly as wide as the falces, and they are furnished in front with numerous hairs and long bristles.

The *maxillæ* and *labium* are of a dull brownish hue, tipped with pale yellow.

The *sternum* is nearly circular, and of a uniform pale straw-yellow colour.

The *abdomen* is of a yellow colour, rather darker on the sides, spotted and marked with brownish-black, and also with some spots, lines, and patches of white pubescent hairs; these latter give the Spider a remarkable appearance, the darker markings being much obscured by the general yellowish hairy clothing; when examined closely, however, and especially when in spirit of wine, the usual characteristic markings become apparent enough. The normal longitudinal macula on the fore half of the upperside is of a yellowish brown hue, pointed behind, and with some black marginal spots; and the transverse chevrons are formed by more or less perfect blackish lines; the sides are spotted and marked with blackish.

Three immature females of this Spider were found at the roots of stunted herbage on the desert near Jebel y Silsilis, in Upper Egypt.

LYCOSA FIDELIS.

Lycosa fidelis, Cambr. Spid. Palest. & Syr., P. Z. S. 1872, p. 319.

Lycosa galerita, L. Koch, Ægypt. u. Abyss. Arachn. 1875, p. 69, Taf. vii. fig. 1.

The peculiar structure of the palpal organs of the male of this Spider, well represented in Dr. Koch's figure (*loc. cit. supra*), with some other striking characters, render its identity with *L. galerita*,

* The subdivision of the tarsi of this and another allied Sinaitic species (*L. prælongipes*, Cambr.) will probably necessitate the formation of a new genus for their reception.

L. K., pretty certain. Adults of both sexes were frequent both in the neighbourhood of Cairo and Alexandria.

LYCOSA INJUCUNDA, sp. n. (Plate LX. fig. 15.)

Adult male, length rather over 3 lines.

This Spider is very closely allied to *L. fidelis*, Cambr., and is found in the same localities; it may, however, be at once distinguished by the generally duller and less distinct colours and markings in both sexes, especially in the adult males, whose cephalothorax has distinct, though irregularly edged and slightly interrupted, lateral yellow bands, leaving a broken marginal brown band on each side; the central longitudinal yellow band is also quite distinct, strongly radiated at the thoracic junction, and much constricted at the occiput, whereas in *L. fidelis* the central band is scarcely traceable and the lateral ones quite obsolete.

The eyes of the hinder row are further apart than in *L. fidelis*; in other respects, except being generally larger, the eyes are very similar in both species.

The legs are dull yellow, annulated with brown, but not nearly so distinctly as in *L. fidelis*.

The palpi of the adult male differ remarkably in the two species, those of *L. fidelis* having the humeral and digital joints black, and the cubital and radial joints clear yellow, the fore part of the latter, as also the base of the digital joints, clothed with white hairs; the cubital and radial joints are also rather short, and of equal length; while in the present Spider the humeral joint is dull yellow, like the cubital and radial, these two latter being longer and differing in their relative length, the radial being distinctly longer than the cubital, and (as well as the digital, which is of a dark brown colour, and terminates with two strong curved claws) entirely destitute of the white hairs which in *L. fidelis* form so striking a contrast to the black digital joint. The palpal organs of the present species are also of much less complex structure than those of *L. fidelis*: no description would avail to make their structure intelligible; this can only be done by good figures on a large scale; one character, however, of those of the present Spider is unusual, if not unique—the large basal corneous lobe or process being clothed with hairs.

The underside of *L. fidelis* is much darker than in the present Spider; this is especially noticeable in the sternum, which in the former is deep brownish black, and in the latter pale dull yellowish, with sometimes two longitudinal dusky brownish curved stripes.

Adult and immature examples of each sex were found both near Cairo and Alexandria. The females of the present Spider may be distinguished from those of *L. fidelis* by the much smaller and differently formed genital aperture.

LYCOSA INIQUA, sp. n.

Adult female, length nearly 4 lines.

This Spider bears considerable general resemblance to *L. injucunda*, but may be separated at a glance by the large size of the eyes of the

middle row; these are more than double the size of those of the hinder row, and form very nearly as long a line as the latter. The sides of the cephalothorax are rather depressed; a broad, longitudinal, brownish yellow band, radiating at the thoracic junction, occupies the middle; and the lateral margins have a broken band of the same colour, the intermediate spaces forming two broad brown bands; the ocular area is black-brown; and the whole has a dense clothing of yellowish grey pubescence.

The *legs* are rather short, though not very unequal in length, their relative length being apparently 4, 3, 1, 2; they are yellow, the femora banded with black-brown, and the femoral and base of the tibial joints slightly marked with a similar colour.

The *fulcres* are brownish yellow, blackish near their base in front, and marked obliquely towards the extremities with a dusky brown band.

The *sternum* is black-brown, with a broad, irregularly edged, yellow, longitudinal central band, which does not, however, reach the hinder extremity.

The *abdomen* is dull blackish brown above, all the normal characteristic markings being much obscured; the normal central marking on the fore part is bifid at its hinder extremity, and has an angular point, directed backwards, near the middle of each side; the hinder part has two nearly parallel longitudinal rows, each of three or four rather conspicuous pale spots, furnished with whitish hairs; and between them is an indistinct series of yellowish angular bars or chevrons; the sides are marked with black-brown spots and broken lines, which are more thinly dispersed towards the underside, which is yellow, margined with black-brown, and divided by a longitudinal central dark brown bar.

A single example was found under a stone near Alexandria.

LYCOSA INQUIETA, sp. n.

Adult male, length 2 lines.

Cephalothorax, deep brown, with a broad, longitudinal, central brownish yellow band, tapering slightly from the eyes to the hinder extremity, and, together with the space included by the four large posterior eyes, covered thickly with yellowish grey hairs; there is also on each side a narrow yellowish lateral stripe, interrupted near the middle, and situated a little way above the margin; the *clypeus* is brownish yellow.

The *eyes* of the middle row do not appear to be larger than those of the hinder one; but the line formed by them is shorter than that formed by the latter, and also a little shorter than that formed by the laterals (on each side) of these two rows; the centrals of the front row are larger than the laterals, and are much further apart from each other than each is from the lateral eye on its side.

The *legs* are long, and tolerably strong; their colour is dull yellowish, faintly annulated with dusky brown.

The *palpi* are also dull yellowish in colour, the digital joint being brown; the radial joint is rather larger and stronger than the

cubital, and (together with the digital) pretty densely clothed with black bristly hairs; the palpal organs have a strong, pointed process at their fore part, the point directed forwards and outwards; between the base of this process and the outer margin of the digital joint is a small bluntish corneous, black-tipped point; and near the middle of the large basal lobe is a small prominent blunt-pointed process, with another of equal length springing at right angles from its base; on the outer side the digital joint has no terminal claw.

The *fulces* are dull yellowish, suffused with dusky brown.

The *maxillæ* and *labium* are pale yellow, and the *sternum* black-brown.

The *abdomen* is broader behind than before; it has all the characteristic markings on the upperside indicated by black lines and spots on a reddish yellow ground; the normal marking on the fore half is rather blunt-pointed behind, and broadest near the middle, whence on either side an oblique black line issues; the sides are dull yellow, marked with short black lines and spots, some of which are disposed in oblique rows; the underside is pale yellow.

A single example of this small but very distinct species was found near Alexandria; in its colours and pattern it is very like *Tarantula miniata*, Koch, but is much smaller.

LYCOSA INOPINA, sp. n. (Plate LX. fig. 16.)

Lycosa proxima, Cambr. Spid. Palest. & Syr., P. Z. S. 1872, p. 316 (nec *L. proxima*, Koch).

A careful comparison assures me of the identity of the Spider quoted in the above synonym with the species now recorded; and I have now but little doubt that it is distinct from *L. proxima*, Koch, though nearly allied to it; the certainty, however, of this can only be ascertained by comparison of typical examples of both species; meanwhile it seems best to describe the present species as a distinct one.

The length of the adult male is a little over 2 lines; and it belongs to the *monticola* group. The central yellow longitudinal band on the cephalothorax is not very broad; it is widest at the thoracic junction, comes abruptly to a point (sometimes obsolete) immediately behind the ocular area, and tapers to a point at its posterior extremity; the lateral yellow bands are well defined, but irregular on the edges, and interrupted, leaving also a distinct brown marginal stripe; the intermediate spaces form two broad dark yellow-brown bands marked pretty distinctly with converging black lines; these bands are of a bright orange (and sometimes lemon) yellow colour; the ocular area is black.

The *eyes* differ little, if any thing, in size and position from those of *L. inquieta*, Cambr.

The *legs* are long and moderately strong; they are yellow, slightly marked and faintly annulated with dusky brown. Some have scarcely any markings or annulation visible.

The *palpi* are black; the radial and digital joints clothed densely with hairs; the palpal organs are rather simple, the chief charac-

teristic prominent process near the centre is short, stout, obtusely pointed, and with a slightly pointed spur at its base nearly as long as the process itself, with which it forms by its direction a very obtuse angle.

Falces black-brown, but in some examples (probably those more recently come to maturity) yellow, merely clouded with dusky brown.

Sternum dusky brown to black, with a short yellow central stripe or marking.

Maxillæ and *labium* yellowish dusky brown to black, with the extremity of a clearer hue.

Abdomen black, or nearly so above, with the normal markings on the fore half of the upperside broad and somewhat angular in the middle, fining to a point behind, and of a bright orange or lemon-yellow; this is followed to the spinners by a series of strong but short angular bars, or chevrons, generally confluent, decreasing in size as they go backwards, and marked with a few distinct black points or spots; the sides are yellow, more or less clouded with black; and the underside is black, margined on each side with a straight yellowish line. Individuals are frequently found altogether of a lighter hue, and with the underside of the abdomen clear yellow; but the pattern above described on the upperside may be easily traced, being defined by black spots and markings on a yellow ground; in these examples the palpi are also yellow, the radial and digital joints alone deepening to dusky black.

The females generally resemble the males; but the central cephalothoracic band is often dilated behind the ocular area, and constricted at the occiput, the anterior dilatation being more or less extensively marked with yellow brown; the normal macula and succeeding chevrons on the abdomen also often form a broad dentate yellow band narrowing to the spinners; and marked with a series of pairs of black points or spots; in this sex the legs also are far more strongly and distinctly annulated with brown.

Adults of both sexes were common near Alexandria.

LYCOSA OBSERVANS, sp. n.

The adult male of this Spider is 2 lines in length.

It is very closely allied indeed to *L. inopina*, and is found in the same locality and situation; but it is rather smaller, and its colours are in general far less distinct, and run more one into the other, the pattern formed by their distribution being similar; the cephalothorax has no lateral yellow bands visible in either sex; and the posterior half (sometimes more) of the femora of the first pair of legs is black, the corresponding part of the second pair being also suffused with the same hue. The palpi are black, the radial and digital joints densely clothed with hairs: the palpal organs are somewhat similar; but the characteristic process is far less strong, its basal spur being of equal length with the process itself, obtuse, and forming with the process a more acute angle than in *L. inopina*.

It is possible that this Spider may be the *L. proxima*, Koch,

though I am inclined to think it is of a distinct species. In some adult male examples the legs are entirely yellow, without any dark markings or annulations whatever; in general, however, they are more or less distinctly annulated with dusky brown or brown-black, especially in the females.

Adults of both sexes were found near Alexandria.

Fam. SPHASIDES.

Gen. OXYOPES, Latr.

OXYOPES ALEXANDRINUS.

Sphasus alexandrinus, Sav. et Aud. Egypte, p. 142, pl. iv. fig. 1.

Adult and immature examples of each sex were found near Cairo on branches of the sout acacia.

OXYOPES BILINEATUS, sp. n.

Length of an immature female, 2 lines.

Several very young examples of this species were found near Cairo, in a similar situation to that in which the last species was found. I feel no doubt that it is a distinct and probably undescribed species, though in the immature condition this is not absolutely certain, Spiders varying sometimes very considerably in the young state.

In general form and position of the eyes the present Spider is very similar to *O. alexandrinus*. The *abdomen* is of a yellow-brown colour, marked on the upperside with two very nearly parallel longitudinal pale yellowish lines rather wide apart, and comprising a broad brown elongate-oval band running the whole length of the abdomen. The sides are entirely devoid of the oblique pale lines so characteristic in *O. alexandrinus*; nor are there any angular lines, or chevrons, on the hinder half of the upperside of the abdomen.

The *cephalothorax* is yellow, with three broad longitudinal brown bands.

Fam. SALTICIDES.

In recording and describing the species of this family found by myself in Egypt, I have not attempted to place them in any systematic consecutive order: the known species are placed first; and they are followed in each genus by the species considered to be new to science. Few families of the Araneidea need a thorough revision so much as the Salticids, especially with respect to the exotic genera. The number of described species of the family is now so great (upwards of one thousand) that their certain subdivision into well marked genera becomes each year a more pressing necessity. M. Eugène Simon has worked hard and successfully at the European forms of this family; and I am mainly indebted to him for the determination of those found in Egypt.

Gen. BALLUS, Thor.

BALLUS PIGER, sp. n.

Adult female, length 2 lines.

This Spider is very nearly allied to *Bullus heterophthalmus*,

Koch (*Marpissa brevipes*, Koch, *Salticus obscurus*, Bl.), which it closely resembles in form, size, colour, and markings; and it may be distinguished by the legs of the first pair being like the rest, but slightly striped with brown; whereas in *B. obscurus*, they are almost wholly (at least the femoral, genual, and tibial joints) deep chocolate-brown; the humeral and cubital joints also of the palpi are of the same hue, whereas in the present Spider the palpi have scarcely any dark markings. Although these differences appear at first sight but slight ones by which to distinguish the species, I feel convinced that they will be found to be constant; I have examined numerous examples of the European form, and find no variation whatever in the markings of the legs and palpi; and I should be confident that some day the adult male and other examples of the female will further prove their distinctness from *S. obscurus*.

A single example only of the adult female was found in Upper Egypt.

Gen. ATTUS, Sim. (*Salticus*, Latr. ad partem).

ATTUS DELECTUS. (Plate LX. fig. 88.)

Attus delectus, Cambr. Spid. Pal. & Syr., P. Z. S. 1872, p. 326.

Adults of both sexes of this pretty and distinctly marked Spider were found near Alexandria.

ATTUS MOUFFETTII.

Salticus mouffettii, Sav. et Aud. Egypte, p. 171, pl. vii. fig. 17.

An adult female of this well marked Spider was found near Alexandria.

ATTUS STANTONII.

Salticus stantonii, Cambr. Spid. Pal. & Syr., P. Z. S. 1872, p. 331, pl. xiv. fig. 20.

Salticus congener, Cambr. loc. cit. p. 332.

Adults of both sexes of this exceedingly distinct Spider were found in Upper Egypt, and are undoubtedly identical with those described *l. c. supra*. I have, moreover, now no hesitation in determining *S. congener* (*l. c. supra*) to be the female of *S. (Attus) stantonii*, although differing from it so considerably in colour and markings.

ATTUS SPINIGER. (Plate LX. fig. 103.)

Salticus spiniger, Cambr. Spid. Pal. & Syr., P. Z. S. 1872, p. 339.

Both sexes, adult as well as immature, were found on the trunks of palm-trees at various places in Egypt, between Cairo and Assouan. The very long, circularly coiled, filiform spine, connected with the palpal organs of the male, forms a very striking and distinguishing character, and renders the present Spider an easy one to be determined.

ATTUS PAYKULLII.

Salticus paykullii, Sav. et Aud. Egypte, p. 172, pl. vii. fig. 22.

S. vaillantii, Luc. Explor. de l'Algér. Arachn. p. 136, pl. v. fig. 2.

The identity of the two Spiders mentioned in the above synonyms appears to be undoubted. Adult and immature examples of both sexes were found near Cairo and Alexandria, generally on old walls. I have received lately adults of both sexes from the Mauritius, from Edward Newton, Esq., and also from Bombay, from Major Julian Hobson (H.M. Staff Corps).

ATTUS SOLDANII.

Salticus soldanii, Sav. et Aud. Egypte, p. 181, pl. vii. fig. 17, 18.

An adult male and several female and immature adults were found near Alexandria.

ATTUS MONARDI.

Salticus monardi, Luc. Explor. de l'Algér. p. 156, pl. vii. fig. 1.

An adult male of this distinct and pretty species was found near Cairo.

ATTUS FULGENS.

Salticus fulgens, Cambr. Spid. Pal. & Syr., P. Z. S. 1872, p. 340, pl. xiv. fig. 17.

Adults of both sexes were not unfrequent on trees and plants, near Alexandria, Cairo, and in Upper Egypt. This is one of the most brilliant and pretty of all the Salticids I found in Egypt; and its golden green iridescent abdomen distinctly spotted with white renders it an easily determined species.

ATTUS REGILLUS. (Plate LX. fig. 17.)

Attus regillus, L. Koeh, Verhand. zool.-bot. Ges. Wien, p. 879.

Adult and immature males with immature females were found near Cairo and in Upper Egypt on trees and low shrubs, and subsequently in similar situations near Smyrna and Ephesus. I have also received it from Bombay. I include this Spider in the genus *Attus* on M. Simon's authority; but I conceive that the peculiar, almost circular form of the cephalothorax entitles it to generic separation from the typical *Atti*. A similar form of cephalothorax is not unfrequent in several other (as yet undescribed) exotic species.

ATTUS BONNETII.

Attus bonnetii, Sav. et Aud. Egypte, pl. vii. fig. 14 (♀).

Attus canescens, Cambr. Spid. Palest. & Syr., P. Z. S. 1872, p. 323.

Adults of both sexes of this species were found near Alexandria, and also at the roots and among the stems of stunted plants on the desert near Jebel y Silsilis, in Upper Egypt.

Savigny and Audouin describe and figure only the female; the male (length $2\frac{1}{2}$ lines) differs in the abdomen wanting the double longitudinal nearly parallel series of short oblique pale streaks on the upperside; instead of these there is a broad longitudinal central

dark blackish-brown band, which sometimes emits a few very short oblique streaks on each side near its hinder extremity. The rest of the upper part and sides are thickly clothed with greyish hairs; though occasionally the sides have a broad longitudinal rusty or brownish band, marked with one or more indistinct oblique pale lines.

The *clypeus* of the male is, in general, densely clothed with white hairs, though in some examples these hairs are rusty red; the lateral margins also of the cephalothorax have a broad band of white hairs; and the upperside has two indistinct longitudinal bands of a similar nature.

The *legs* are sometimes yellow, without any markings; but in some specimens they are faintly annulated and marked with brown.

The *palpi* are short and similar to the legs in colour; the cubital and radial joints are very short; the latter is the shortest, and has, at the extremity of its outer side beneath, a strong slightly curved, prominent, tapering and sharp-pointed reddish-brown apophysis; from its position this apophysis is not easily seen without considerable care in examination; its length is equal to, if it does not exceed, the length of the joint. The palpi are clothed with long white bristly hairs; the digital joint is of good size, longer than the radial and cubital joints together; it is of a somewhat oblong-oval form, constricted on its outer side towards the fore extremity, where it has a somewhat truncated appearance. The palpal organs appear to be simple in form, and are of a dark reddish-brown colour.

This Spider is evidently subject to considerable variety in colours and distinctness of markings. A variety of the female, described in "Spid. Palest. & Syr." *l. c. supra* as *Salticus canescens*, Koch, has the longitudinal central band on the abdomen of a rusty red hue, but similar in its form and character to that of the male. An example of this variety, resembling exactly the Palestine specimen, was found along with the rest in Upper Egypt. Probably the variation in markings depends chiefly on the hairy clothing being more or less uninjured; when colours are dependent on pubescence, these will vary very much according to the length of time since the Spider became adult and has been exposed to the brilliant rays of the sun on a barren desert.

ATTUS OCULATUS, sp. n. (Plate LX. fig. 90.)

Adult male, length 2 lines.

The *cephalothorax* is massive, the hinder slope abrupt and slightly hollow in the profile line; the profile of the upper part of the caput forms a slightly curved line; and the fore part of the ocular region is rather prominent; its colour is yellow brown, the ocular area strongly tinged with orange, and the margins black; the surface is pretty thickly clothed with a depressed yellowish grey pubescence and whitish squamose hairs; the *clypeus* and the lateral margins (as well as the base of the *falces* in front) being more densely and regularly clothed with pure white hairs of the same nature.

The *eyes* are on black tuberculate spots, in the ordinary position;

the ocular area is broader than long, the line formed by the two posterior eyes being considerably longer than that formed by the four anterior ones; the fore centrals are of a dull mother-of-pearl colour, unusually large, but not quite contiguous to each other, and each is also very near but not quite contiguous to the lateral of the same row on its side. The minute eyes of the middle row are rather nearer to the posterior than to the anterior row, and each is placed within the straight line formed by the lateral eyes of those two rows respectively.

The *legs* are rather unequal in length; those of the first pair (in the male) are the longest and strongest; the femora, genua, and tibiæ of this pair are of a bright yellow-brown, the metatarsi considerably darker, and the tarsi pale yellow, the tibiæ and metatarsi being fringed above and below with strong prominent hairs; the legs of the third pair are, in the males, next in length (in the females they are rather longer than those of the first pair), those of the second pair being a little shorter than those of the fourth; these three pairs are yellow, slightly marked with dusky brown, but not regularly annulated; all are furnished with spines, those beneath the tibiæ and metatarsi of the first pair being the longest and strongest.

The *palpi* are short, and yellow in colour, the radial and digital joints bright yellow-brown; they are furnished thickly with hairs, chiefly white, and some of them, especially on the cubital, radial, and digital joints long and strong; the radial is rather shorter than the cubital, and has its extremity on the outer side produced into a very slightly curved, tolerably strong, tapering, deep-reddish-yellow-brown apophysis, almost, if not quite, equal in length to the joint itself; the digital joint is oval, and as long if not rather longer than the radial and cubital joints together; the palpal organs are well-developed, but simple in structure, with a strong curved tapering corneous process or spine lying along their inner side.

The *falces* are small, of a deep blackish red-brown colour, and clothed with white squamose hairs near their base in front.

The *maxillæ* and *labium* are similar to the falces in colour, tipped with pale yellowish.

The *sternum* is yellow, oval, and clothed with coarse whitish hairs.

The *abdomen* is small, oval, blunt behind, truncate before, and clothed pretty thickly with hairs; its colour is sandy yellowish, marked above and on the sides with dark brown, but forming no very definite pattern; the markings on the upperside are joined to the lateral ones, and form somewhat oblique but irregular lines; a central dark marking along the middle of the fore half of the upperside is also occasionally traceable; the spinners are moderately long and prominent.

The female is larger than the male, and is of a generally paler hue; the fore central eyes are also of a dull opaque whitish porcelain hue.

Two adults of each sex were found at the roots and among the stems of scattered herbage on the desert near Gebel-y-Silsilis, in

Upper Egypt. It is a very active spider, and appears to be nearly allied to the *Attus frontalis* (Walck.) of Europe.

ATTUS MENDICUS, sp. n.

Adult male, length $2\frac{1}{2}$ lines; adult female, 4 lines.

The *cephalothorax* is of a deep brown-black colour, densely clothed with greyish and sandy-grey pubescence, and margined with long white hairs; the hairs on the ocular area are of a distinctly squamose character, and sometimes form alternate longitudinal stripes of a whitish and sandy brownish-red hue. The fore part of the ocular area is also furnished with a few long curved bristles and bristly hairs; and the clypeus equals in height the diameter of a fore central eye.

The *eyes* are in the usual position, and their colour is dull greenish mother-of-pearl; the ocular area is scarcely broader than long, but projects forward considerably, and the line formed by the two posterior eyes is equal to that formed by the four anterior ones; the lateral eyes of the anterior row are removed considerably backwards, so that, looked at from above and behind, the row is strongly curved, with the curve directed forwards; the interval between each lateral and the central eye nearest to it is very nearly, if not quite, equal to the diameter of the lateral; the minute eyes of the middle row are respectively halfway between the laterals of the posterior and anterior rows.

The *legs* are strong, moderately long, and of a yellowish colour, indistinctly annulated with brown, furnished with spines, and clothed with hair, chief among which is a more or less dense whitish pubescence; the tibiæ, tarsi, and metatarsi of the first pair are dark brown. The femora of the same pair are somewhat tumid on the outer sides, rather beneath the fore extremity, where they have also a conspicuous double fringe of dark bristly hairs; their relative length appears to be 4, 3, 1, 2; but the difference is not very great; beneath the terminal claws of each tarsus is a black scopula, or brush of hairs.

The *palpi* are yellow, thickly fringed above and on each side with long, curved, white, bristly hairs, among which are a few black bristles; the cubital and radial joints are very short, but of about equal length; and the latter does not appear to have any apophysis at its outer extremity. The digital joint is equal to the radial and cubital joints together, and of an oblong oval form, truncated at its fore extremity; it is of a deep brown colour, clothed with long whitish bristles and hairs. The palpal organs are very large, but of simple structure, and of a somewhat globularly oval form; they are nearly black in colour, and extend backwards and outwards beneath the radial joint.

The *falces* are small, directed backwards, and, from the prominence of the ocular area, placed far back beneath the fore part of the cephalothorax; they are of a dark yellow-brown colour, clothed with hairs.

The *abdomen* is of a broadish oval form, dark black-brown,

but densely and uniformly clothed with whitish and sandy grey pubescence, liable to be rubbed off in capturing and securing.

The female is considerably larger than the male, but resembles it in general characters and appearance; the colour of the abdomen in this sex, however, is more commonly of a more sandy hue than that of the male.

Adults of both sexes were found on the bare desert in several places from Alexandria to Assouan, and, except when in motion, are exceedingly difficult to perceive. The males are very active.

ATTUS MENDAX, sp. n.

Adult male, length 3 lines.

The *cephalothorax* of this Spider is massive, but of ordinary form, and thickly pubescent, with a good many prominent bristly hairs scattered over its upper surface, but most thickly on the fore part of the ocular area. It is of a deep black-brown hue, and has two parallel longitudinal stripes clothed with white hairs; these stripes run to the eyes of the hinder row, and melt away insensibly into the somewhat greyish rusty-yellow colour of the ocular area; the black-brown band between them is rather more than double their width, but narrows a little at its hinder extremity; the margins of the cephalothorax are black; but there is a bordering of white hairs both above and below them.

The *eyes* are in the ordinary position; the ocular area is broader than long, and the length of the hinder row is less than that of the anterior one; the eyes of the intermediate row equally separate the posterior and anterior ones, and each is placed a little within the straight line formed by the laterals of these two rows on its side. The height of the clypeus equals the diameter of one of the fore central eyes; these are very near to each other, but not quite contiguous, and each is separated from the lateral eye of the same row on its side by no more than one third the diameter of the latter.

The *legs* are strong, but not very long, nor greatly different in length; relatively to each other they are 4, 3, 1, 2; their colour is a dull yellow, faintly marked with a dusky hue, but scarcely annulated; they are clothed with a little greyish pubescence, and furnished with spines, hairs, and bristles; each tarsus terminates with two rather long claws, pectinated, and with a strong and compact scopula beneath them.

The *palpi* are short and strong; they are of a pale yellowish colour, the digital joints being slightly brownish yellow; the cubital joints are thickly fringed and clothed above with strong white hairs, among which, on the fore margin of the upperside of the joint, is a strong, prominent, black, tapering bristle; the radial joint is shorter than the cubital, and has a small, dark-coloured, slightly curved, and (apparently) blunt-pointed apophysis at its extremity on the outer side, just, or nearly, behind which is a rather compact tuft of straight black bristles; there are also some other bristles (both black and white) on other parts of the joint; the digital joint is large,

considerably longer than the radial and cubital joints together, of an oblong-oval form, somewhat obliquely truncated at its fore extremity, and clothed with whitish hairs; the palpal organs are simple but large, and project backwards and rather outwards beneath, but free from, the radial joint, terminating in a somewhat conical point.

The *falces* are small, straight, nearly vertical, and of a yellow-brown colour, furnished with hairs and bristles.

The *abdomen* is oval, pointed behind, hairy, and of tolerable size; the upperside is brownish black, with a strong longitudinal central white or pale sandy grey stripe; this stripe is well defined on its edges, but is slightly broadest behind, and a very little notched or irregular on the edges in that part; the sides are slightly marked with brown, as also is the underside; but usually all markings on these parts are obscured by the thick grey or light sandy-grey pubescence; the spinners are prominent, black, tipped with white.

Three adult males were found in the neighbourhood of Cairo. It is nearly allied to *Attus fasciatus*, Hahn, but (the male, at least, the female being yet unknown) may be distinguished by its stronger and more robust form, and the distinctness of the white stripes on the cephalothorax and abdomen. It is also nearly allied to a species* abundant in the neighbourhood of Jerusalem and Jericho, and recorded (Spid. Palest. and Syria, P. Z. S. 1872, p. 322) as *A. fasciatus*, Hahn, with which species M. Simon considered it to be identical.

Having more recently found undoubted examples, in the south of England, of the true *A. fasciatus*, Hahn, the Palestine examples are proved to be quite distinct, being not only very much larger, but differing decidedly in colours and in the structure of the palpi.

ATTUS EFFIGIES, sp. n.

Immature male, length $2\frac{3}{4}$ lines.

Although almost denuded of hairs and pubescence, I am induced to describe this Spider as new to science, since it presents a very distinct pattern, and exhibits a strong likeness to a well-known European form *Yllenus*, *V.-insignitus*, Clk., from which, however, I think it is probably quite distinct.

The *cephalothorax* is dark yellow-brown, with two longitudinal yellow bands running backwards from each eye of the posterior row; these bands are partly clothed with white hairs, and probably are entirely and very distinctly so in uninjured specimens; the ocular area is dark brown, clothed with a greyish pubescence, showing some converging lines on its fore part, somewhat resembling those lines which form the Δ -shaped mark in *Yllenus V.-insignitus*,

* To this Spider I now give the name of *Attus interceptor*. It may be distinguished from *A. mendax* (described above) by its larger size, and dark-brown sides, forming, in fact, three longitudinal grey stripes on the abdomen; the radial and hinder part of the digital joints of the palpi are also black-brown, offering a strong contrast to the white hairs with which the cubital joint is clothed; the legs, too, of the male differ in being dark red-brown and black, the tarsal joint yellow-brown, and the scopula of a sandy-greyish hue.

Clk. ; the height of the clypeus equals, or nearly so, the diameter of one of the fore central eyes. The ocular area is broader than long ; but the length of the posterior and anterior rows of eyes is equal ; the eyes of the intermediate row are rather nearer to the posterior than to the anterior row.

The legs are short and strong ; their relative length appears to be 4, 3, 1, 2 ; they are banded alternately, though not very distinctly, with yellow and yellow-brown ; they are armed with spines (but most of the hairy clothing was absent) ; and each tarsus has a black scopula beneath the terminal claws.

The *palpi* (in an undeveloped state) are yellow, the digital joint being of large size.

The *abdomen* is black-brown on the upperside ; a dark oblong marking along the centre of the fore half is followed to the spinners by a series of short, pale, angular bars, or chevrons, running one into the other and forming a dentated band ; it is probable that this band is clothed with white hairs in uninjured examples ; the sides are brown, marked with one or two oblique pale stripes ; and the underside is pale luteous, spotted thinly with small black-brown spots, which concentrate and form an undefined band along the middle. The spinners are prominent, of a dark-brown colour, tipped with dull yellowish white.

A single example was found near Alexandria.

ATTUS MEMORIALIS, sp. n.

Adult female, length slightly over 2 lines.

The *cephalothorax* of this Spider is of ordinary form ; in the two female examples found it was wholly (probably accidentally) denuded of hairy clothing ; its colour is dark yellow-brown, with two longitudinal, pretty-well defined, dull orange-yellow stripes reaching from the hinder extremity (where they converge a little) to the ocular area, which is jet-black ; the fore part of this area is prominent, and the clypeus (whose height is less than half the diameter of one of the fore central eyes) retreats ; besides the two longitudinal stripes, there is a broad marginal one of the same hue on each side.

The *eyes* are in the usual position ; the ocular area is broader than long, its posterior side being a very little shorter than the anterior ; the eyes of the intermediate row are a little closer to the lateral eye of the posterior than to that of the anterior row on either side, but are in the same straight line with them ; the eyes of the anterior row are bordered with white cilia ; and probably the yellow stripes on the cephalothorax are usually clothed with white or grey or yellowish hairs, the remaining portions with dark brown ones ; but, in the absence of an uninjured specimen, this is uncertain.

The *legs* are moderately strong, and not very long ; their relative length appears to be 4, 1, 3, 2, the difference, if any, between those of the first and third pairs being very slight ; the colour is yellow, without any markings or annulation : all the ordinary

hairs and bristles were wanting (probably rubbed off by accident); but some strongish spines remained. The tarsal claws of the first and second pairs have a single small tooth near their middle part underneath; on the other legs the claws were absent, probably broken off by accident.

The *falces* are short, rather strong, directed backwards, and of a brownish orange-yellow colour.

The *abdomen* is oval; its colour is pale yellow, with two broad, brown, nearly parallel, longitudinal, well-defined bands down the centre of the upperside, and a less well-defined marginal stripe of the same colour on each side; taking the brown portions to be the ground-colour, there are thus three strong longitudinal yellowish stripes on the upperside—a straight one along the centre, and a curved one on each side; the underside has no markings, being of a uniform pale yellow; besides darker ones, the whole abdomen is thinly clothed with greyish hairs.

The adult male (length $1\frac{2}{3}$ line) resembles the female in colours and markings; the yellow stripes on the upperside of the cephalothorax are clothed with white hairs; and the ocular area has the remains of a yellowish-grey pubescence. The *palpi* are short, their colour is a dull brownish yellow, and they are furnished with white and black hairs and bristles; the cubital joint has a group of black bristles near its extremity on the inner side; the radial joint is rather shorter than the cubital, and furnished thickly with dark bristly hairs on the inner side; the whole of the outer side is a little produced, and apparently terminates with two small, blunt-pointed apophyses, forming a small fork-like extremity (the hinder apophysis being the least strong, and of a dark brown colour); the digital joint is large, of an oval form, considerably exceeding in length that of the radial and cubital joints together; its colour is yellow-brown, clothed with blackish bristly hairs, and tipped with grey ones; the palpal organs are large, and consist of a nearly globular pale brownish-yellow corneous bulb, which extends backwards beneath the radial joint. The tarsal claws of the fourth pair of legs are very slender, and have several fine pectinations near and beneath the fore extremity; I was unable to observe those of the first and second pairs; beneath the terminal claws in both sexes is a small dark scopula. The central yellow abdominal stripe in the male is much broader than the lateral ones, and has some very fine yellow points, issuing obliquely on each side, near its hinder extremity. These points represent the terminations of the ordinary angular bars, or chevrons, here obsolete.

An adult male, and two adult females were found in Upper Egypt. It is a very distinct species, though allied to *Attus lineatus*, Koch, and *A. bresnieri*, Luc.

ATTUS MEMORABILIS, sp. n. (Plate LX. fig. 110.)

Adult male length 3 to $4\frac{1}{4}$ lines.

Cephalothorax nearly double as long as broad, and of a flattened form; its colour is yellow-brown, and of a much deeper hue on the hinder slope than on the sides, with a black margin slightly fringed

with white hairs ; ocular area black, thinly furnished with fine shiny yellowish-grey hairs ; the hinder part has several short oblique stripes of white hairs ; and besides other hairs and slender bristles, there are one or two small tufts of stronger black bristles on either side of the ocular area just below the extremities of the anterior and intermediate rows of eyes, looking (when perfect) like horns ; there is also a patch of white hairs close behind each eye of the posterior row ; and one example also had a similar patch close behind the fore central eye. Clypeus almost obsolete.

The *eyes* are in the usual position ; the ocular area is broader than long, and the length of the posterior row of eyes is slightly greater than that of the anterior one. The eyes of the intermediate row are rather nearer to the posterior than to the anterior lateral eyes.

The *legs* are moderately long and not very strong, except those of the first pair ; these are long and of inordinate strength, especially the femoral joints ; those of the fourth pair are longer than those of the second, and the third pair are rather the shortest ; the first pair are of a dark reddish yellow-brown colour, armed with a double row of not very strong spines beneath the tibiæ and metatarsi, and furnished thickly, and chiefly underneath, with fine prominent hairs ; the tarsi are paler-coloured than the rest, and (like those of the other pairs) have a small compact black scopula beneath their terminal claws ; the other three pairs are of a brownish yellow (the femora strongly suffused with dark smoky brown) and furnished with hairs and fine spines.

The *palpi* are rather short and slender ; they are of a dark reddish yellow-brown colour, furnished with hairs, many of which are nearly white ; the radial joint is exceedingly short, shorter than the cubital, and its outer extremity terminates with a small curved, deep black-brown, pointed apophysis ; the digital joint is oblong oval, and exceeds in length that of the cubital and radial joints together ; its colour is deep brown, it is clothed with dark hairs, and at its extremity (which is rather of a truncate form) there are some short dull sandy-coloured ones ; the palpal organs are simple in form, and extend a little backwards beneath the radial joint.

The *falces* are tolerably long and strong ; they are also divergent and projecting forwards, and are armed with a strong tooth on their inner sides.

The *maxillæ* and *labium* are reddish yellow-brown, the latter being the darkest ; and the *sternum* is small, oval, of a dull yellow colour, dark brown in front and on the margins.

The *abdomen* is of a long narrow oblong oval form, nearly half as long again as the cephalothorax, and not much more than half its width ; the upperside is clothed with hairs, many of which are of a shining, rather golden-green hue, scintillating in different lights ; it is of a dark brown colour, with a somewhat paler longitudinal central band, from which three well-marked though irregularly defined oblique yellowish stripes, clothed with white hairs, issue on either side ; there are also two others of a similar nature on the fore margin, forming a curved anterior marginal border ; the sides are closely stri-

ated, in a longitudinal direction with brown; and the underside is dull pale yellow, marked with a longitudinal central dark brown stripe, on each side of which, towards the margins, is a finer line of the same colour; these lines converge towards the spinners, which are rather long and prominent; those of the superior pair are pale yellow, black on the uppersides, the inferior pair being of a brighter yellow.

The adult female measures about $4\frac{1}{2}$ lines in length, but differs very greatly in colours and markings from the male, though in general structure and form the sexes are much more nearly alike. The female has the sides of the cephalothorax yellow, deepening to a dark striated brown above, the caput black, clothed with fine pale hairs, and some long white ones on the clypeus; the two horn-like tufts of black bristles below and behind the lateral eyes of the anterior row are generally better defined than in the male.

The *legs* are yellow; those of the first pair tinged with orange-brown; these last are much the strongest, though not so disproportionately strong as in the male; they are scarcely longer, if so long as those of the fourth pair, the second pair being perhaps a little the shortest. The palpi are short, slender, yellow, semiannulated with black.

The *abdomen* is much longer in proportion than that of the male, being considerably more than double the length of the cephalothorax; its general colour is pale yellow, the upperside dark blackish brown, with a broadish, longitudinal, pale-yellowish, central, slightly dentated band, spotted sparingly with small black spots, and bisected longitudinally by a black line; the sides are very sparingly marked with brown; and the underside has seldom more than a fragment or two of the brown stripe and lines on that of the male.

Adult males, together with an adult and immature females, were found among rushes and herbage in a marsh near Alexandria. It is a very striking-looking Spider, allied to *Attus staintonii*, Cambr., and belongs to a group which has, as yet, no known representatives in Europe. From various points in its form and structure, it seems entitled to rank as generically distinct from the typical *Atti*; it appears indeed very similar in form to some species of the exotic genus *Mavia*, C. Koch; but at present, not possessing any type of *Mavia*, I am not able to determine whether or not it is identical in form and structure with the typical species of that genus.

Gen. YLLENUS, Thor.

YLLENUS SALIENS, sp. n. (Plate LX. fig. 92.)

Adult male, length $1\frac{1}{2}$ line; adult female, $1\frac{3}{4}$ to 2 lines.

This minute but pretty little Spider is in general colours and markings very much like *Attus bonnetii*, Sav. (described above p. 611): it is, however, much smaller and generally of a brighter colour; the legs differ in length; and the palpi and palpal organs are very different in their form and structure.

The *cephalothorax* of the male, which is very massive, is of an

orange-yellow-brown colour; the ocular area is thickly clothed with whitish or yellowish grey squamose adpressed hairs. The thoracic region has two longitudinal bands of white hairs, running backward from the eyes of the posterior row; these bands are often coalescent with other whitish hairs on the sides and hinder slope and those on the ocular area; in some examples a marginal band of white hairs is traceable; some examples have the sides and hinder slope clothed with reddish yellow hairs, and in these the white stripes show very distinctly; the clypeus, which is less in height than half the diameter of the fore central eyes, is clothed with pale dull scarlet (or perhaps, more correctly speaking, brick-red) hairs. The ocular area is broader than long, the hinder row being a little longer than the foremost one.

The *legs* are strong and moderately long; their relative length is 4, 1, 2, 3, those of the fourth pair, especially the femoral joints, being considerably the longest; their colour is yellow, furnished with hairs, bristles, and spines, the hairs being chiefly of a whitish hue, and the scapula beneath the tarsal claws blackish.

The *palpi* are short and resemble the legs in colour, and are pretty thickly furnished with long bristly white hairs; the radial joint is very short, shorter than the cubital, and has a blunt pointed yellow-brown apophysis at its outer extremity, tipped with black; the digital joint is long and of a narrow oblong oval form, clothed at the tip with black hairs; the palpal organs are large and of a somewhat globular form, they extend backwards beneath the radial joint, and are of a dark yellow-brown colour.

The *falces* are small and of a deep yellow-brown colour.

The *maxillæ*, *labium*, and *sternum* are yellow, clothed thinly with coarse grey hairs.

The *abdomen* is small, oval, and hairy; its colour is yellow; and it has a broad longitudinal central band, on its upperside, of an orange yellow-brown colour, often of a deep red-brown on the fore half, and showing traces of the normal curved or angular bars, or chevrons, of a dark yellow-brown colour on the hinder half; the sides have a longitudinal ill-defined orange-brown band, in some examples represented by a few short oblique stripes of that colour; the underside is of a pale straw yellow without any markings.

The *female* has the legs and palpi sometimes slightly annulated with dark brown, and the central abdominal stripe sometimes of a dark brown colour, and more dentated on the edges of the hinder part than in the male; in other respects the sexes are very much alike.

Adults of both sexes were found among the stems and at the roots of scattered stunted plants on the desert near Jebel y Silsilis. It is an exceedingly active Spider, the length of its leaps being remarkable, its long hind legs giving it no doubt great powers of jumping. Although so nearly resembling *Attus bonnetii* in colours and markings, the length of its hind legs will distinguish it readily. It is probably a common Spider, inasmuch as the seven examples I found were all at the base of one tuft of herbage.

Gen. PLEXIPPUS, Koch.

PLEXIPPUS ADANSONII.

Attus adansonii, Sav. et Aud. Egypte, p. 169, pl. vii. fig. 8.

Attus tardigradus, id. ibid. p. 170, pl. vii. fig. 13.

Attus oraniensis, Luc. Explor. Algér. p. 144, pl. v. fig. 8.

Attus nigrofuscus, Vins. Aran. des îles de la Réunion, Maurice et Madagascar, 1863, p. 59 et 302, pl. x. fig. 8.

Three adult males and an adult female were found at Cairo.

I feel no hesitation in determining the *Attus nigrofuscus*, Vinson, to be of this species. Savigny and Lucas figured only the males, while Vinson describes and figures the female alone. Numerous examples of both sexes received from Bombay and Ceylon agree exactly with the examples found both in Egypt and Palestine; nor can I find any difference in examples lately received from Edward Newton, Esq., from the Mauritius.

Gen. MENEMERUS, Sim.

MENEMERUS VIGORATUS.

Euophrys vigoratus, Koch, Die Arachn. xiv. p. 14, figs. 1282, 1283.

A single example of the female (immature), determined by M. Simon to be of this species, was found near Cairo.

MENEMERUS HEYDENII.

Menemerus heydenii, Sim. Monogr. des Att. d'Europe, Ann. Soc. Ent. Fr. 1868, 4^e sér. viii. p. 665.

Adult and immature examples of both sexes were found not unfrequently upon the trunks of palm trees near Cairo and in Upper Egypt.

MENEMERUS ANIMATUS, sp. n. (Plate LX. fig. 89.)

Adult male, length $2\frac{1}{2}$ lines.

The *cephalothorax* is of a rather flattened form; its colour is dark-brown, with a broad yellowish marginal band, a large, somewhat subtriangular patch on the thorax (continued down the hinder slope in a narrow band) of the same colour, and a small spot behind each posterior eye, densely clothed with white depressed hairs, with which also the ocular area and the clypeus are more or less clothed; brown and golden-yellowish hairs are also often intermixed with the others on the ocular area.

The *eyes* are in the ordinary position; the ocular area appears to be about equal in length and breadth; the length, however, of the anterior row exceeds slightly that of the posterior one; and the eyes of the intermediate row are rather nearer to the posterior than to the anterior one.

The *legs* are moderate in length and strength; they do not differ greatly in their length, which appears to be relatively 4, 1, 3, 2; their colour is yellow; and they are furnished sparingly with hairs, slender bristles, and spines, each tarsus terminating with a small dark-coloured scopula beneath the tarsal claws.

The *falces* are of moderate size and strength, and are placed rather far back, owing to the projection of the ocular area; they are slightly divergent, and project a little from a vertical position; their colour is a deep rich red-brown; and their surface is marked with numerous transverse ingrained striations.

The *palpi* are of moderate length; and their colour is yellow, the radial joints yellow-brown; the humeral joint is very strong and tumid underneath, with a strong, pointed, tooth-like spur or prominence near its base on the outer side; this joint is thickly clothed with coarse white hairs: the radial joint is shorter than the cubital, but is produced laterally on each side, and has a pointed apophysis at its extremity underneath; the digital joint is large, and of an elongate oval form and dark red-brown colour, clothed with dark hairs, a few at the anterior extremity being of a paler hue. The palpal organs are not complex, but highly developed and prominent, extending far backwards beneath, and on the inner side of, the radial joint.

The *maxillæ* and *labium* are blackish-brown, tipped with pale yellow.

The *sternum* is oval, and of a yellow colour.

The *abdomen* is oval, of a somewhat flattened form, and sparingly clothed with hairs; its colour is yellow, marked, but not strongly, on the upperside with yellow-brown, giving some faint indications of an irregular longitudinal central yellowish band (along the fore half of which is a dark marking), and some short, oblique, slightly curved lateral stripes issuing from its hinder half; the lateral margins also of the upperside are irregular, being in some examples marked with short alternate yellowish and yellow-brown oblique markings.

The female resembles the male in colours and markings, though those of the cephalothorax are less strong and distinct than in that sex.

Adults of both sexes were found on rocks and walls in Upper Egypt, and three immature examples near Alexandria.

MENEMERUS INTEREMPTOR, sp. n.

Adult female, length 4 lines.

This Spider is nearly allied to *M. animatus*, but is considerably larger, and though resembling it in its general hue, is even less distinct in its markings.

The *cephalothorax* is dark yellow-brown, darkest on the caput, and with an indistinct yellowish marginal band; the whole surface is clothed, but not very densely, with yellowish-grey, mixed with a somewhat golden pubescence. The ocular area is broader than long; and the length of the hinder row of eyes is a little greater than that of the anterior row.

The *legs* are moderately strong, and not very long; their relative length appears to be 4, 1, 3, 2, though the difference, if any, between 4 and 1, and 3 and 2, respectively, is very slight; those of the first two pairs are yellow-brown, the third and fourth being yellow; all are furnished, but not very conspicuously, with hairs, slender bristles, and spines; the tarsi are furnished at their extremities with

a small black scopula beneath the tarsal claws, which have only a single, scarcely visible denticulation near the middle of their under-side.

The *palpi* are slender, of moderate length, and fringed thickly on each side with coarse white hairs.

The *falces* are deep reddish black-brown, the *maxillæ* and *labium* being dark yellow-brown, tipped with yellowish-white, and the *sternum* dull orange-yellow.

The *abdomen* is yellow, slightly suffused with yellow-brown on the upperside, which has an indistinct and rather irregular marginal brownish line, enclosing nearly its whole area, the enclosed space being narrower behind than before, and containing a longitudinal central tapering band, very faintly defined by two lines of a slightly paler hue than the rest; the sides are marked with a few faint, brownish, horizontal lines or short stripes; the underside is yellow, immaculate, the spinners short and of a yellow-brown colour; the genital aperture is of a transverse oval form, and connected with a rather large dark yellow-brown somewhat quadrate area.

Several adult and immature females, with an immature male, were found near Cairo.

Gen. EPIBLEMUM, Hentz (*Calliethera*, C. Koch).

EPIBLEMUM TRICINCTUM.

Calliethera tricineta, C. Koch, Die Arachn. xiii. p. 50, pl. xlv. fig. 1117.

Two adult females of this species were found near Alexandria. It is very nearly allied to *E. scenicum*, Koch., but may easily be distinguished by the oblique lateral white stripes uniting and forming transverse bands across the abdomen.

EPIBLEMUM PALUDIVAGUM.

Salticus paludivagus, Luc. Explor. Algér. p. 167, pl. viii. fig. 7.

A single adult female (concluded by M. Simon to be of this species) was found near Alexandria.

Gen. HELIOPHANUS, C. Koch.

HELIOPHANUS DECORATUS.

Salticus cupreus, Sav. et Aud. Egypte, p. 171, pl. vii. fig. 15.

Heliophanus decoratus, L. Koch, Ægyptische und abyss. Arachn. 1875, p. 87, pl. vii. fig. 8.

Adult examples of both sexes were found among plants on the walls of the fortifications near Alexandria.

There is no doubt about the distinctness of this Spider from *H. cupreus*, Walck. (Europe); and I feel confident that it is the same as that described and figured by Savigny and Audouin, and (lately) by Dr. L. Koch (*loc. cit. supra*). It is very nearly allied to, perhaps identical with, *H. facetus*, Cambr., found in Palestine.

Gen. *SALTICUS*, Sim. (Latr. ad part.).*SALTICUS TODILLUS*.

Salticus todillus, Sim. Monogr. Att. d'Europe, Ann. Soc. Ent. Fr. 4^e sér. 1868, tom. viii. p. 713, pl. iii. fig. 15; Cambr. Spid. Palest. and Syria, P. Z. S. 1872, p. 324, pl. xiv. fig. 19.

Examples of this very distinct and pretty little *Salticus* were found under stones near Alexandria.

SALTICUS REPUDIATUS, sp. n.

Adult female, length 2 lines.

This Spider is nearly allied to, but quite distinct from *S. todillus*, Sim.

The *cephalothorax* is of a flattened oblong form, the fore extremity almost squarely truncated, and the hinder slope slight, and somewhat rounded in profile; it is of an orange-yellow brown colour, with two broad longitudinal dark brown bands running from the hinder extremity, through the posterior eyes, to the fore part of the ocular area, in the dark blackish-brown colouring of which they merge.

The *eyes* are in the ordinary position; the ocular area is longer than broad, and its fore part is very projecting; the eyes of the intermediate row are much nearer to the anterior than to the posterior row, and are placed within the straight line of the lateral eyes of those two rows.

The *legs* are moderately long, their relative length being 4, 1, 3, 2; those of the three posterior pairs are slender, and, except the metatarsi of the second pair, furnished with hairs only; the femora, genua, and tibiæ of the first pair are very much stronger than those of any of the rest, of a yellow-brown colour, the tibial joints much darker, and, with the metatarsi, armed beneath with two longitudinal parallel rows of four strong spines in each row; the legs of the second pair are yellow, the tibiæ marked on each side forwards with brown; those of the third and fourth pairs are yellow; all the tarsi have a small dark scopula beneath the terminal claws.

The *palpi* are moderately long, slender, and of a yellow colour.

The *fulcres* are small, vertical, yellow-brown, and placed far back beneath the fore part of the cephalothorax.

The *maxillæ* and *labium* are yellow-brown, the *sternum* yellow, and of a narrow oval form.

The *abdomen* is of an elongate oval form, constricted towards the fore part, and joined to the cephalothorax by a short but distinct pedicle; its colour is yellow-brown, paler in the region of the constriction and on the sides of the fore extremity; a small oblong patch at the fore extremity, as well as most of the hinder half, are shining and of a somewhat corneous appearance, the hinder extremity also deepening considerably in colour; the underside is much paler, with two faint longitudinal, parallel, dusky-brown bands.

A single example of the adult female was found under a stone near Alexandria.

List of Species above described and recorded.

Fam. FILISTATIDES.

- Filistata testacea*, Latr., p. 543.
 — *puta*, sp. n., p. 544.

Fam. ECOBIIDES.

- Æcobius putus*, sp. n., p. 544, Plate LVIII. fig. 1.
 — *templi*, sp. n., p. 545, Plate LVIII. fig. 2.
 — *annulipes*, Luc., p. 546.
Uroctea limbata, C. Koch, p. 546.

Fam. DYSDERIDES.

- Ariadne insidiatrix*, Sav., p. 547.
Dysdera lata, Reuss, p. 547.
Oonops scutatus, sp. n., p. 547, Plate LVIII. fig. 2 A.
 — *pauper*, sp. n., p. 549.

Fam. DRASSIDES.

- Gnaphosa plumalis*, Cambr., p. 550.
 — *conspersa*, id., p. 550.
 — *procera*, id., p. 550.
 — *marginata*, id., p. 551.
 — *venatrix*, id., p. 551.
Drassus mundulus, id., p. 551.
 — *senilis*, id., p. 551.
 — *infumatus*, id., p. 551.
 — *ornatus*, id., p. 551.
 — *campestratus*, id., p. 551.
 — *alexandrinus*, id., p. 551.
 — *egyptius*, id., p. 552.
 — *vulpinus*, id., p. 552.
 — *denotatus*, id., p. 552.
 — *pugnax*, id., p. 552.
Prothesima læta, Cambr., p. 552.
 — *picina*, id., p. 552.
 — *tristricula*, id., p. 552.
 — *curina*, id., p. 552.
 — *nilicola*, id., p. 552.
 — *mollis*, id., p. 553.
 — *pallida*, id., p. 553.
 — *inaurata*, id., p. 553.
Micaria cineta, L. Koch, p. 552.
Cheiracanthium dubium, id., p. 553.
 — *equestre*, id., p. 553.
 — *isiacum*, Cambr., p. 553.
 — *tenuissimum*, L. Koch, p. 553.
 — *annulipes*, id., p. 553.

Fam. PALPIMANIDES.

- Palpimanus hamatinus*, C. Koch, p. 554.
 — *savignyi*, Sav., p. 554.

Fam. ERESIDES.

- Eresus petagnei*, id., p. 554.
 — *dufourii*, id., p. 554.

Fam. DICTYNIDES.

- Dictyna innocens*, Cambr., p. 555.
 — *conducens*, sp. n., p. 556, Plate LVIII. fig. 3.
 — *conducta*, sp. n., p. 556, Plate LVIII. fig. 4.

Fam. AGELENIDES.

- Titanæa distincta*, Cambr., p. 557.
Agelena lepida, sp. n., p. 558.
Tegenaria proxima, Cambr., p. 559.
Tetrax coarctata, Duf., p. 559.
Eurya nitida, Sav., p. 559.
 — *expers*, sp. n., p. 560.

Fam. HERSILIIDES.

- Hersilia candata*, Sav. et Aud. (var. *diversa*, Cambr.), p. 560, Plate LVIII. fig. 6.
Hersilia lucasii, sp. n., p. 562, Plate LVIII. fig. 5.

Fam. SCYTODIDES.

- Loxoscelis rufescens*, Duf., p. 564.
Scytodes thoracica, Walck., p. 564.
 — *kochii*, sp. n., p. 564.

Fam. PHOLCIDES.

- Pholcus semicaudatus*, sp. n., p. 565.
 — *rivulatus*, Sav. et Aud., p. 566.

Fam. THERIDIIDES.

- Latrodictus erebus*, Sav. et Aud., p. 567.
Lithyphantes hamatus, Koch, p. 568.
Steatoda signata, sp. n., p. 568.
 — ? *mandibulare*, Luc., p. 568.
Euryopsis acuminata, Luc., p. 569.
 — *scripta*, Cambr., p. 569.
 — *quadrinaculata*, sp. n., p. 569.
Theridion rufolineatum, Luc., p. 569.
 — *varians*, Koch, p. 570.
 — *spinitarsis*, sp. n., p. 570.
 — *melanostictum*, sp. n., p. 570.
Mimetes monticolus, Bl., p. 571.
Erigone spinosa, Cambr., p. 572.
 — *alexandrina*, id., p. 572.
Linyphia extricata, sp. n., p. 572, Plate LIX. fig. 7.
Pachygnatha argyrostilba, sp. n., p. 573, Plate LIX. fig. 8.

Fam. EPEIRIDES.

- Tetragnatha molesta*, Cambr., p. 574.
 — *nitens*, Sav., p. 574.
 — *flava*, id., p. 574.
 — *filiformis*, id., p. 575.
 — *pelusia*, id., p. 575.

Singa affinis, sp. n., p. 575.
 — *lucina*, Sav., p. 575.
Argiope aurelia, Sav., p. 576.
 — *sticticalis*, sp. n., p. 576.
Cyrtophora opuntiae, Duf., p. 576.
Epeira chloris, Sav., p. 576.
 — *suspiciæ*, sp. n., p. 577.
 — *perplicata*, Cambr., p. 577.
 — *circe*, Sav., p. 577.
 — *dromedaria*, Walck., p. 577.
 — *atomaria*, sp. n., p. 577, Plate
 LIX. fig. 9.

Fam. ULOBORIDES.

Uloborus signatus, sp. n., p. 579.

Fam. THOMISIDES.

Thomisus lateralis, C. Koch, p. 580.
 — *spinifer*, Cambr., p. 580.
Dieu diana, Sav., p. 580.
 — *candicans*, sp. n., p. 580.
Aysticus hirtus, Sav., p. 581.
 — *promiscuus*, sp. n., p. 581.
 — *ferus*, sp. n., p. 583.
 — *peccans*, sp. n., p. 584.
 — *subelatus*, sp. n., p. 584.
Selenops egyptiaca, Sav., p. 585, Plate
 LIX. fig. 10.
Sparassus walckenaerius, Sav., p. 587.
 — *cognatus*, sp. n., p. 588.
 — *suavis*, sp. n., p. 588.
Artanes bigibba, sp. n., p. 590.
 — *lucens*, sp. n., p. 591.
Thanatus albini, Sav., p. 591.
 — *lineatipes*, sp. n., p. 591.
 — *flavus*, sp. n., p. 592.
 — *flavescens*, sp. n., p. 592.
Philodromus adjacens, sp. n., p. 592,
 Plate LIX. fig. 11.
 — *medius*, Cambr., p. 594.
 — *cinereus*, sp. n., p. 594.
 — *venustus*, sp. n., p. 595, Plate
 LIX. fig. 12.

Fam. LYCOSIDES.

Nilus (gen. nov.) *curtus*, sp. n., p. 596,
 Plate LIX. fig. 13.
Pirata leopardus, Sundl., p. 598.
 — *proxima*, sp. n., p. 598.
Trochosa partita, sp. n., p. 599.
 — *depuncta*, sp. n., p. 600.
 — *pilipes*, Luc., p. 600.
 — *virulenta*, sp. n., p. 600.
 — *urbana*, sp. n., p. 601, Plate LX.
 fig. 14.

Trochosa effera, Cambr., p. 601.
Tarentula tarentulina, Sav., p. 601.
 — *truculenta*, sp. n., p. 601.
 — *tremens*, sp. n., p. 602.
Lycosa unguolata, sp. n., p. 603.
 — *fidelis*, Cambr., p. 604.
 — *injucunda*, sp. n., p. 605, Plate
 LX. fig. 15.
 — *iniqua*, sp. n., p. 605.
 — *inquieta*, sp. n., p. 606.
 — *inopina*, sp. n., p. 607, Plate LX.
 fig. 16.
 — *observans*, sp. n., p. 608.

Fam. SPIASIDES.

Oxyopes alexandrinus, Sav., p. 609.
 — *bilineatus*, sp. n., p. 609.

Fam. SALTICIDES.

Ballus piger, sp. n., p. 609.
Attus delectus, Cambr., p. 610, Plate
 LX. fig. 88.
 — *mouffettii*, Sav., p. 610.
 — *staintonii*, Cambr., p. 610.
 — *spiniger*, id., p. 610, Plate LX.
 fig. 103.
 — *paykullii*, Sav., p. 610.
 — *soldanii*, id., p. 611.
 — *monardi*, Luc., p. 611.
 — *fulgens*, Cambr., p. 611.
 — *regillus*, L. Koch, p. 611, Plate
 LX. fig. 17.
 — *bonnetii*, Sav., p. 611.
 — *oculatus*, sp. n., p. 612, Plate LX.
 fig. 90.
 — *mendicus*, sp. n., p. 614.
 — *mendax*, sp. n., p. 615.
 — *effigies*, sp. n., p. 616.
 — *memorialis*, sp. n., p. 617.
 — *memorabilis*, sp. n., p. 618, Plate
 LX. fig. 110.
Yllenus saliens, sp. n., p. 620, Plate
 LX. fig. 92.
Plexippus adansonii, Sav., p. 622.
Menemerus vigoratus, Koch, p. 622.
 — *heydenii*, Sim., p. 622.
 — *animatus*, sp. n., p. 622, Plate
 LX. fig. 89.
 — *interemptor*, sp. n., p. 623.
Epiblemma tricinctum, C. Koch, p. 624.
 — *paludivagum*, Luc., p. 624.
Heliophanus decoratus, L. Koch, p. 624.
Salticus todillus, Sim., p. 625.
 — *repudiatus*, sp. n., p. 625.

List of Egyptian Spiders not found by myself, but described and recorded by other Authors.

Fam. THERAPHOSIDES.

Nemesia cellicola, Sav. et Aud.

Chetopelma egyptiaca, Dol.

Fam. DYSDERIDES.

Dysdera erythrina, Sav. et Aud. (probably not *D. erythrina*, Walck.).

Fam. ECOSIDES.

Uroctea durandi, Duf.

— *goudoti*, C. Koch.

Fam. DRASSIDES.

Gnaphosa lentiginosa, C. Koch.

— *schacfferi*, Sav. et Aud.

— *linnæi*, id.

Micaria albini, Sav. et Aud.

Drassus lyonettii, iid.

— *listeri*, iid. (*Clubione*).

Prosthesima listeri, iid. (*Drassus*).

Fam. ERESIDES.

Eresus pharaonius, Walck.

— *molitor*, C. Koch (genus *Stegodyphus*, SIMP.).

— *fuscifrons*, id.

— *lituratus*, id.

— *senicinctus*, id.

Fam. AGELENIDES.

Lachesis perversa, Sav. et Aud.

Arachne timida.

Tegenaria (?) *familiaris*, Sav. et Aud. (*Arachne*).

— *pagana*, Koch (L. Koch, 'Ægypt. und abyss. Arachn.').

Fam. ENYOIDES.

Enyo longipes, Sav. et Aud.

Fam. SCYTODIDES.

Scytodes immaculata, L. Koch ('Ægypt. u. abyss. Arachn.').

Fam. PHOLCIDES.

Artema convexa, Bl. (*Pholc. borbonicus*, Vins., L. Koch, 'Ægypt. und abyss. Arachn.,' 1875, p. 25).

Fam. THERIDIHIDES.

Theridion vagulans, L. Koch (*l. c. supra*).

— *triangulosum*, Walck. (L. Koch, *l. c.*)

Latrodectus 13-guttatus, Rossi, = *L. argus*, Sav. et Aud.

— *martius*, Sav. Walck. (i. p. 645) denies the fact of its being an Egyptian Spider; but M. Simon ("Aran. nouv. ou peu connus de l'Europe, 2^e Mém.," Mém. Liège, 1873) states it to be so.

Lithyphantes venator, id. (*Latrodectus*).

— *chippiatus*, Thor.

Erigone vagans, Sav. et Aud.

Fam. EPEIRIDES.

Argiope sericea, Oliv. (Sav. et Aud.).

— *splendida*, Sav. et Aud.

Epeira armida, Sav. et Aud.

— *umbratica*, id. (nec *umbratica*, C. K.).

Fam. THOMISIDÆ.

- Thomisus peronii*, Sav. et Aud.
 — *martynei*, iid.
Misumena buffonii, iid. (*Thomisus*).
Dica globosa, Fabr. (*Thomisus rotundatus*, Sav. et Aud.).
Xysticus lalandi, id. (*Thomisus*, Sav. et Aud.).
 — *clerekii*, id. (*Thomisus*, iid.).
Sparassus clerekii, id. (*Philodromus*, iid.).
 — *argelasius*, Latr. (*Phil. linnei*, Sav. et Aud.).
Thanatus fabricii, Sav. et Aud. (*Philodromus*).
 — *rhombiferens*, iid. (*Philodromus*).

Fam. LYCOSIDÆ.

- Ocyale atalanta*, Sav. et Aud.
Dolomedes hippomane, iid.
 • *Trochosa peltiona*, iid. (*Lycosa*).
 — *nilotica*, iid. (*Lycosa*).
 — *annulipes*, L. Koch ('Ægypt. u. abyss. Arachn.').
Lycosa arenaria, Sav. et Aud.
 — *peregrina*, iid.
 — *pclusiuea*, iid.
 — *serena*, L. Koch ('Ægypt. und abyss. Arachn.').

Fam. SALTICIDÆ.

- Attus frischii*, Sav. et Aud. (*Salticus*).
 — *druryi*, iid. (*Salticus*).
 — *gcsneri*, iid. (*Salticus*).
 — *hunteri*, iid. (*Salticus*).
 — *illigeri*, iid. (*Salticus*).
 — *redii*, iid. (*Salticus*).
Euphrys plebeja, L. Koch ('Ægypt. u. abyss. Arachn.').
Ælurops dorthesii, Sav. et Aud. (*Salticus*).

EXPLANATION OF THE PLATES.

PLATE LVIII.

- Fig. 1. *Ecobius putus*, sp. n., p. 544.
 a, Spider, enlarged; b, eyes, from the front; c, right palpus, from inner side; d, natural length of Spider.
 2. *Ecobius templi*, sp. n., p. 545.
 a, Spider, enlarged; b, eyes, from the front; c, right palpus, from inner side; d, genital aperture (♀); e, natural length.
 2A. *Oonops scutatus*, sp. n., p. 547.
 a, Spider, enlarged; b, underside, with legs truncated; c, profile, ditto; d, eyes, from the front; e, f, palpus in two positions; g, natural length.
 3. *Dictyna conducens*, sp. n., p. 556.
 a, Spider, enlarged; b, profile, without legs; c, cephalothorax and falces, from the front; d, e, palpus in two positions; f, genital aperture (♀); g, natural length.
 4. *Dictyna conducta*, sp. n., p. 556.
 a, Spider, enlarged; b, profile, without legs; c, cephalothorax and falces, from the front; d, e, left palpus in two positions; f, natural length.
 6. *Hersilia caudata*, Sav. et Aud., p. 560.
 a, Spider, enlarged; b, eyes and falces, from the front; c, natural length.
 5. *Hersilia lucasii*, sp. n., p. 562.
 a, Spider, enlarged; b, eyes, from the front; c, d, left palpus in two positions; e, natural length.

PLATE LIX.

Fig. 7. *Linyphia extricata*, sp. n., p. 572.

- a*, Spider, enlarged; *b*, profile, without legs; *c*, right palpus, on outer side; *d*, genital aperture (♀); *e*, natural length.
8. *Pachygnatha argyrostiba*, sp. n., p. 573.
a, Spider, enlarged; *b*, eyes and falcies, from the front; *c*, *d*, right palpus in two positions; *e*, natural length.
9. *Epeira atomaria*, sp. n., p. 577.
a, Spider, enlarged; *b*, profile, ditto; *c*, abdomen, ditto; *d*, *e*, palpus in two positions; *f*, natural length.
10. *Selenops aegyptiaca*, Sav. et Aud., p. 585.
a, Spider, natural size; *b*, profile, enlarged, without legs; *c*, eyes and falcies, from the front; *d*, *e*, palpus in two positions.
11. *Philodromus adjacens*, sp. n., p. 592.
a, Spider, enlarged; *b*, eyes and falcies, from the front; *c*, *d*, right palpus in two positions; *e*, genital aperture (♀); *f*, natural length.
12. *Philodromus venustus*, sp. n., p. 595.
a, Spider, enlarged; *b*, eyes, from the front; *c*, genital aperture; *d*, natural length.

PLATE LX.

13. Gen. nov. *Nilus curtus*, sp. n., p. 596.
a, Spider, enlarged; *b*, eyes, from the front; *c*, maxillae and labium; *d*, terminal claws at extremity of tarsus; *e*, natural length.
14. *Trochoa urbana*, sp. n., p. 601.
a, Spider, enlarged; *b*, *c*, palpus in two positions; *d*, genital aperture (♀); *e*, natural length (♂).
15. *Lycosa inucunda*, sp. n., p. 605.
a, Spider, enlarged; *b*, *c*, palpus in two positions; *d*, genital aperture (♀); *e*, natural length (♂).
16. *Lycosa inopina*, sp. n., p. 607.
a, Spider, enlarged; *b*, *c*, palpus in two positions; *d*, natural length.
88. *Attus delectus*, Cambr., p. 610.
a, Spider, enlarged; *b*, ditto in profile, without legs; *c*, female, from above, without legs or palpi; *d*, *e*, right palpus in two positions; *f*, natural length (♀); *g*, ditto (♂).
103. *Attus spiniger*, Cambr., p. 610.
a, Spider, enlarged; *b*, ditto in profile, without legs; *c*, *d*, right palpus in two positions; *e*, natural length.
17. *Attus regillus*, L. Koch., p. 611.
a, Spider, enlarged; *b*, ditto in profile, without legs; *c*, *d*, right palpus in two positions; *e*, natural length.
90. *Attus oculatus*, sp. n., p. 612.
a, Spider, enlarged; *b*, ditto in profile, without legs; *c*, *d*, right palpus in two positions; *e*, natural length (♂); *f*, genital aperture (♀).
110. *Attus memorabilis*, sp. n., p. 618.
a, Spider, enlarged; *b*, ditto in profile, without legs; *c*, female, above, without legs; *d*, *e*, right palpus in two positions; *f*, natural length (♂); *g*, ditto (♀).
92. *Illenus saliens*, sp. n., p. 620.
a, Spider, enlarged; *b*, ditto in profile, without legs; *c*, *d*, right palpus in two positions; *e*, natural length.
89. *Mencmerus animatus*, sp. n., p. 622.
a, Spider, enlarged; *b*, ditto in profile, without legs; *c*, *d*, palpus in two positions; *e*, natural length.